

The Ultimatum of GOD NATURE

The One-Straw Revolution

A RECAPITULATION

Masanobu Fukuoka

Translated into English from the book originally published in Japanese

by Masanobu Fukuoka

“総括変　・　わら一本の革命　「神と自然と人の革命」”

Copyright (C) 1996 Shou Shin Sha (小舎), Japan

201-2 Oohira Iyo-shi Ehime-ken 799-31 JAPAN

All right reserved. No part of this book

may be reproduced in any form or by any electronic or mechanical means,

including information storage and retrieval systems,

without written permission of the copyright owner.

本書の無断転載・複製を禁じます。

Printed in Japan

CONTENTS

PREFACE

CHAPTER 1 WHAT IS GOD?

(1) Seeing God.....	2
A. The Disappearance of God.....	4
B. Starting a Natural Farm.....	5
(2) What Is God?.....	9
A. The Grass and Trees Are God.....	11
B. The Garden of Eden.....	13
(3) Nature Is God.....	20
A. Scientists Who Deny That Nature Is God.....	20
B. The Errors of Science.....	21
C. The Errors of Human Knowledge.....	23
(4) The Life and Death of God.....	27
A. Men Who Kill God.....	27
B. Men who Keep God Alive.....	32
(5) What Religious Activity Should Be.....	34
A. God and False Gods.....	37
B. Religion and War.....	39
C. A Life of Natural Culture.....	43

CHAPTER 2 WHAT IS NATURE?

(1) Agnosticism: Man Cannot Know Nature.....	47
A. The World Is Not Relative.....	47
B. The Windmill of Cause and Effect.....	50

(2) Scientific Measures Against Desertification: A Criticism.....	56
A. The Illusion of the Law of Causality.....	56
B. The Existing State of Desertification Countermeasures.....	57
(3) The Road to the Revegetation of the Desert.....	62
A. Vegetation in the Desert Today.....	62
B. The Desertification of Europe and the United States.....	64
C. The Tragedy of Africa.....	67
D. Sowing Seeds in an African Refugee Camp.....	70
(4) Revegetating The Earth by Natural Methods.....	73
A. Revegetating the Earth Through Intuitive. Deductive Methods.....	73
B. The World Agricultural Crisis.....	75
C. Cows and Goats Will Destroy the Land, Cultured Fish the Sea.....	78
(5) The Revegetation of the Desert by Natural Methods.....	80
A. Desert Revegetation According to the Theory of Non-causality.....	80
B. Aerial Seeding Using Clay Pellets.....	83
C. Creating a Natural Farm (Temperate Zones and Sub-tropical Zones).....	90
(6) Sowing a Variety of Seeds in the Desert to Create a Forest for Elephants.....	97

CHAPTER 3 WHAT IS HUMAN KNOWLEDGE?

(1) Unbalanced Human Knowledge.....	104
A. The Rise of Science.....	104
B. The Birth of the Relative View.....	106
C. The Birth and Expansion of Contradictions.....	109
(2) A Criticism of Darwin's Theory of Evolution.....	111
A. Classification a Result of the Discriminative View.....	111
B. The Theory of Simultaneous Origination of All Living Things.....	117
C. The Theory of the Rising and Sinking of Genes.....	122

D. The Dharma-Wheel Theory of Flux in All Things.....	128
(3) What Is the Flow of Time?.....	132
A. What Is the Flow of Time Scientists Believe In?.....	133
B. A Three-Dimensional Clock That Will Concretize Absolute Time.....	139
(4) A Relativity Theory of the Universe.....	143

CHAPTER 4 RESOLVING A WORLD CRISIS

(1) The Illness of the Earth and of People.....	152
A. Normality and Abnormality.....	152
B. In Nature, There Is No Damage from Disease or Insects.....	153
C. Eastern and Western Medicine.....	154
D. Life and Death.....	159
(2) Economic Criticism.....	174
A. There Is No Value in Things.....	175
B. The Money-Sucking Octopus Economy.....	179
C. Leaf Economies (The Money Game).....	181
(3) Cultural Criticism.....	185
A. A Denial of the Dialectical Development Theory of Civilization.....	185
B. The Whirlwind Theory of Development.....	186
C. The Philosophical Dharma-Wheel Theory.....	187

CHAPTER 5 THE ROAD BACK TO NATURE

(1) The Disappearing Vegetation of America.....	190
A. The American Continent Today.....	190
B. Sunday Markets.....	193
C. Urban Natural Farms.....	196
(2) The Road to Natural Farming.....	197

A. People Sow and Birds Sow.....	197
B. Rice Growing in the Sacramento Valley.....	200
C. Sowing Seeds on the Plains.....	203
D. From Organic Farming to Natural Farming.....	205
E. The International Conference on Natural Farming.....	209
F. Japanese Cedars at the Zen Center.....	213
(3) A Message for the 21st Century.....	215
A. Let Us Return to the God of Nature.....	215
B. Putting a Stop to the Reckless Course of Science and Economics.....	218
C. We Must Hurry to Revegetate the Earth.....	219
APPENDIX: "DRAFT OF A HUMAN CHARTER FOR THE 21ST CENTURY".....	224
THE REVEGETATION OF INDIA.....	235

PREFACE

Now I wish

To talk about, what God is.

What has God been?

God is said to be the Lord of Heaven, the object of religious belief.

In Christianity, God is the omniscient, omnipotent creator of the universe.

But that does not explain what God is.

Even if we say "the Creator," we do not know who that is.

Once, fifty years ago, I knew God.

But, at that time, I had no words to express God.

For a long time, as the days passed and the years passed,

I wandered about, searching for the name of the God I has lost sight of.

At last, after fifty years, I have remembered.

The problem was not that God has no shape or form.

On the contrary, we are all looking at God all the time.

God's form is evident everywhere.

Now, it is easy to reveal the name of God.

But before that, I must make one point clear.

If I do not, my words will be completely meaningless.

This book is meant to help people

Return to God,

Return to nature,

Return to themselves.

CHAPTER 1: WHAT IS GOD?

PART 1: SEEING GOD

I would like to talk about God now. (Translator's note: For the sake of convenience, the word "God" has been used throughout the text as a translation of the Japanese word "*kami*". *Kami* generally refers to a divine power that may be found in natural objects, plants, animals, and human beings, and should not be confused with the God of Western monotheistic religions). In order to do so I must go back and talk about something that happened to me exactly fifty years ago.

At the time I was a typical young man of five-five. A believer in science, I was working in the Plant Inspection Division of the Yokohama Customs Bureau. I spent my spare time peering into a microscope in the plant pathology laboratory, which was located beside a small park in the Yamate area of Yokohama.

Then, without warning, I was stricken with an illness, I was overcome with the fear of death and began to question the meaning of human existence. I became completely immersed in my distress and finally reached the point of wandering through the hills, day and night.

At last, after a night of wandering, I leaned in exhaustion at the foot of a tree and sat in a daze, drifting in and out of sleep as dawn approached. Suddenly, the piercing cry of a night heron, soaring upward through the dawn clouds, abruptly woke me as if from a dream.

In an instant I had become a different person. I sensed that, with the clearing of the dawn mist, I had been transformed completely, body and soul. The first words that rose to my lips were, "There is nothing. There really is nothing at all, whether this be the mundane world or God's world." I leaped to my feet in joyful amazement.

Just as the saying goes. God had struck me like a bolt from the blue. It is no exaggeration to say that peals of thunder beat against my head and lightning flashed, as the true nature of this world became vividly apparent to me. I was so overcome with powerful emotion that I was

reduced to trembling, both in body and in spirit.

I shouted for joy, with words that must have been incomprehensible. With all my might I had been grasping at something, foolishly searching for something when there was nothing there at all.

The sparkle of the morning dew on the grass, the green of the trees bathed in morning light and trembling with joy, the delightful chatter of the birds gathered in the dawn.... what a wonder it was that I too was able to take my place in this realm of freedom, this world of ecstasy.

I literally clapped my hands and stamped my feet in my delight at knowing God, and I was unable to stop trembling. The tempest of emotion that assailed me at that time is indelibly impressed in my mind, its freshness undimmed even today. And yet, I could not expect those feelings to last forever. As I recall, I did not continue long in that state of physical and spiritual ecstasy, bathed in rapture and at the height of bliss.

For a year, at the most, I was brimming with self-confidence, convinced that I had come to possess the wisdom of God and that, with it, I could solve all the problems of this world. Perhaps that conviction lasted only half a year. As the days passed, the storm of emotion that had burst upon me gradually lessened in intensity. When I realized what was happening, the true form of God, which had been so certain to me at one time, had disappeared, and I had become once again a simple, foolish man who knew nothing at all. My thoughts might have changed, but that did not necessarily mean that I myself had undergone a fundamental change.

A. The Disappearance of God

Let me now look at the process through which I lost sight of the God that I once held within my grasp. The problem had already begun when I began to calm down and return to my senses from the state of ecstasy I had been in. The more I realized the magnificence of the God I had held in my grasp and the more I understood the importance of knowing God, the more I understood my own foolishness and powerlessness.

The rapture of God had been overwhelmingly great, and thus the more I longed to convey this joy to other people, to share it with them, the more it became a burden on my heart. Consequently, the desire to become once more the foolish man I had been and to live out my days in an unremarkable, carefree manner grew stronger within me. Once I had regained my composure, my thoughts began spinning about in turmoil, and I found myself in a dilemma, standing between God and mankind but unable to move toward either.

Nevertheless, I felt at ease during those days, happy and optimistic. In 1937 I resigned from the Yokohama Customs Bureau and, setting out from the Boso Peninsula in Chiba Prefecture, traveled westward for a month or two, stopping here and there along the way. Delighting in the beauty of nature as I went, I reached Kyushu as winter began. During my travels I conversed with a number of people I met, expounding to them about the nature of God.

My ideas were too abrupt for them, and, as a result, all I learned was how much these ideas were at odds with the way society thought. In a burst of youthful ardor, I would declare that men are fools, only to be rebuked that I was the one who was crazy. When I said that mankind lives in an unreal world, I would be told that I was simply looking at a dream. Gradually I resigned myself to the fact that, as long as I could not find the words to express God, there was nothing else I could do but keep silent. Before I knew it, God had retreated from me, and the deep emotion that had been released within me at the time of my experience grew weaker. I convinced myself that I was being deserted by both nature and God.

I could only look on in sorrow as the body and soul I had hoped would become one with nature instead became separate from it. Gradually I lost the energy and confidence to display that magnificent wisdom of God like some priestly vestment.

As a matter of course, the vivid, true form of nature no longer shoved itself to me, and I could no longer hear any song in the chirping of the birds. As I accepted the thought that I would never again meet with God, I even began to believe that I no longer knew God and should not even say I had once known God.

If at that time I had been the sort of man to immerse myself in religious discipline, possessed

of a firm will, then perhaps I would have driven myself to remain close to the seal of God. But being at heart an ignorant and cowardly man. I stepped down from that precious position and chose to live the easy life of a farmer, avoiding my responsibility to both myself and the world.

B. Starting a Natural Farm

After spending some time living in a lakeshore hut at Yufuin, outside Beppu in Kyushu, I returned to my hometown in Ehime Prefecture, Shikoku, in the spring of 1938. Living alone in a hut in the hills, I began preparing to start a natural farm based on my belief in spontaneity and doing nothing.

I started out, resolved to make the farm at the top of the hill into a Garden of Eden but at first I only gathered the children of the village and spent all my time with them in innocent play. At the time the mandarin orange trees my father had planted had been carefully shaped, but because I failed to prune them and left them to assume their natural shapes, they were ruined. The first step in my method of natural farming by doing nothing was a magnificent failure, but I was pleased that at least I had learned the difference between nonintervention and nature.

Although my father was worried, I was unconcerned. Unfortunately, however the tide of the time carried me in an adverse direction. The skies over Asia had become dangerous, as the sound of soldiers marching off to war gradually grew louder and louder. Naturally, it no longer was possible for me to turn my back on the world and live alone and carefree in my hut on hillside.

As society became more agitated, my own surroundings lost their serenity, and my father, who was the village headman, became quite worried. He urged me to leave the village and find work somewhere, even in an agricultural experimental station. It was a time when the government and the farmers were pouring all their efforts into increasing food production, so I decided rather selfishly that, rather than hiding myself in the hills, I would in fact be better able to pursue a secluded life by moving into town and working for the government. So I obeyed my father's wishes and left the hillside.

Here is something I scribbled in my hut at that time.

Wishing to cultivate the earth

I cultivate knowledge

In vain I wield my hoe

And sharpen my sickle

The earth languishes grass and trees wither

Gazing at heaven and earth heaving a long sigh

I am filled with shame

When will it be

That the Garden of Eden

Blooms once again

This small hermitage, Musoan (The Hermitage of No Thought), commemorates the birthplace of natural farming, but there is hardly any trace of it left. A number of interesting things were scribbled there, including;

No man calls here

I call out. What is man?

The mind of the dew on the grass The mind of God

Confusion During Wartime

I spent the years until the end of World War II at the Agricultural Experiment Station in Kochi Prefecture. Even today I regret how completely irresponsible I was while working there. Instead of working hard on my research on blight and insect damage in plants, I argued with my co-workers, denying the validity of science and forcing the young men to listen to my idea of going back to an earlier time. Or else, under the guise of investigating plant diseases and harmful insects, I rambled through the mountainous interior of Kochi Prefecture, from one end to the other, compromising by doing research with one foot in natural farming and the other in scientific farming.

The terrible thing was that in the midst of this long stretch of my life, so full of contradictions, I lost myself and was unable to do anything about the fact that I was moving farther and farther away from both nature and God.

Even now I feel deep regret that, as Japan's policies at the time led the country into war, I was helpless to stop the accelerating descent. I could only stand by and watch, until at last we were plunged into war, amid a clamor for death with honor. One Sunday, five or ten young men from the nearby air force unit came to visit on their day off. I acted like a parent to them, but even though I wanted to offer them something, there was no food. So they just spent the entire day lying around in my upstairs room and then went back. The following day they disappeared into the southern sky. It still breaks my heart to recall the boyish faces of those young men.

As defeat began to seem inevitable, and Japan entered the last year of the war, even I was drafted and sent to the front. I greeted the conclusion of the war still lost and confused.

Grateful to have been spared, I received my discharge and returned home. From the next day I went to work in the fields, savoring the joy of having become myself again. Rejoicing in the fact that I was alive and able to work, I harvested the rice. I remember especially the buoyant sound of the threshing machine, as I treaded it for the first time after a long absence.

Since that time, I have been a farmer, never veering from the path of natural farming. While experiencing repeated failures, I developed a method of successive plantings of rice and winter grains, using non-cultivation and direct broadcast of seeds. I was also absorbed in creating natural

orchards without cultivating the land. Before I knew it, forty years had passed. This is not to say that I was an industrious farmer. I was aiming at a do-nothing method of farming, so I was nothing more than a lazy fellow farming for the fun of it.

Exactly fifty years have passed since that eventful day in my youth, and I have the feeling that the void created by the war has finally been filled. I am a white-hair old man now. When I look back on the postwar period, that seems so long and yet so short, and also consider the few years that remain to me, I am led to question whether I have done everything I should.

How I regret the foolishness of my years. I allowed the God I once grasped to slip away from me, and while talking about natural farming, have made no effort to establish that path. While I thought my ideas were of value, at the same time I felt contempt for myself. I was content to be a cowardly, hopelessly lazy farmer.

To be sure, I must appear to others as a man who says whatever he feels like saying, as someone who, despite his poverty, has never stopped looking at his dreams, but on the inside I am not all that indifferent. The journeys I have made have not been carefree, and although on the surface I appear extremely ordinary, on the inside I have always suffered over the tragic comedy of mankind. I suspect that, depending on how you look at it, there never was a man who lived such a troubled life as I have.

The reason for this is that I not only have been unfaithful to the God I once saw, but even could be said to have killed God. In that sense, I am a tragic figure, who has fallen from being a person of the highest good to being the worst among evil men.

I have been unable to do anything of use for other people. While others have been of service to me, I have served no one. I have not even been true to myself. It seems totally unacceptable. At this rate, in the end I still will not know who I am.

I have begun to think that if I do not now clarify the essence of God once more, I will be left with some regret. But there is only one means at my disposal, to look back at what occurred that day and to fix my gaze upon it.

The road I have taken has been a single path, with no side roads.

Ultimately, the starting point of this road is also its end.

PART 2: WHAT IS GOD?

What I Saw

The God I once saw has disappeared from my sight.

I want to consider once more what that God was. Frankly speaking, when I try to recall what it was on this earth that appeared to be heaven, the only things that I saw with my eyes and heard with my ears were the mountains and rivers, the grass and trees, the small birds and flowers and butterflies. What was it that moved me so, that caused me to leap with joy? It was simply that I saw the trembling of the leaves on the trees, felt the throbbing of life, delighted in the singing of the small birds at daybreak, marveled at the transparent eye of the frog, became as light in body and mind as the wings of the dragonfly, and felt as if I were flying as high as the mountain peaks.

The question is why, on that occasion only, did a landscape that I was used to seeing every day appear so fresh and new and move me so deeply. Why did such ordinary natural objects change completely and seize me so forcibly?

To put it briefly, my mind at that time was not in its usual state. You could say that I been driven beyond a normal state of mind to something resembling a blank slate. I had relinquished everything and was half in a state of abstraction, half in a state of mushin, *or detachment, having abandoned all sense of self and achieved a state of transcendence*. I had reached the point of exhaustion. I had gone beyond suffering and had no strength of will left. In the soft, tranquil air of daybreak, I was neither waiting quietly for the dawn nor looking about with half-opened eyes, I was simply face-to-face with the grass and trees. Then it happened. The silence of dawn was broken, and the morning light shone through the thin mist, which seemed to be peeled away layer by layer. Morning had come. All of a sudden, with the sound of fiercely beating wings, a night heron rose into the air and flew away, leaving behind a single sharp cry. I think that with that single cry I suddenly awoke. At the same time, something hot welled up in my chest, as a fresh,

new world opened up within my heart. I knew instinctively, without a doubt, that this was the world of *mushin*, of detachment. I was unable to stop my ceaseless flow of tears.

At that time the mundane world was changed completely, transformed into the world of God. All things, including the mountains, rivers, grass, and trees, which had been wordless until then, were revived and turned into a world of joy.

And yet, if you ask what it was that struck me with wonder, filled me with joy, and moved me so deeply, I was face-to-face with nothing more than the green of the trees, flowers swaying on their stems, and the butterflies.

The instant my normal state of mind flew away, my eyes were opened to the beauty of the wildflowers, which seemed completely different from the flowers I had seen before. Through a single leaf of a tree or a single flower, I was moved to appreciate the beautiful forms of all the natural things in this world, which exist in perfect harmony.

I realized that within the green leaves of the trees, trembling with joy, lay all the joy of this world. I too trembled with joy at the knowledge that I was a part of God. Within the things of nature, which had been completely transformed, I saw neither the image of a god, as it is usually spoken of, nor some apparition of fire or light, and no spirit appeared to inhabit my body.

The God that I came face-to-face with was the green of the trees, wet with dew and sparkling in the sunlight. I was able to hear the voice of God in the singing of the small birds at dawn. I saw no God outside the green of the trees, nor did I apprehend the spirit or soul of vegetation hidden within the trees,

God was, in fact, the mountains and rivers, grass and trees. The small birds were God. When I looked at nature with an empty mind (*mushin*), I was able to perceive that the natural world before me was the true form of God.

When I looked with an empty mind, all of nature was God. This is the God about which I want to speak now. To come directly to the heart of the matter, the mountains, rivers, and plants are God. Besides them there is nothing that can be called God. But, in order to say that the grass and trees are God, there is one absolute prerequisite. That is that you must look at them with an empty

mind.

A. The Grass and Trees Are God

If you look with the mind of attachment, then nature will be nothing more than mountains and rivers, but if you look with detachment, the mountains covered with greenery and the rivers, just as they are, will be transformed into the true form of God.

Fifty years ago nature clearly appeared to me as God, but until now it has not occurred to me to declare that the grasses and trees are God. I have been lost in confusion for many years, foolishly wandering around the periphery of God.

This morning I was able to confirm that the sun that rose, breaking through the dawn clouds, is the God I once was certain of and that the chirping of the birds is indeed the voice of God. Today I again experienced the same throb of emotion as I did that instant in the spring of my twenty-fifth year.

The singing of the birds in the dawn light gave me a blessing. I have been able to confirm once again that the crystalline dew on the flowers of the *daikon* radish is the pure water of God that cleanses my heart.

So long as one does not seek or make inquiries about God, God will appear with great beauty and clarity to anyone at any time.

I am filled now with a sense of reassurance that at last I have been able to grasp the heart of God. God is always present before our eyes. Anyone, anywhere, can hold God within his grasp.

Nevertheless, it is not given to man to discern with ease that the grass and trees he sees everyday are God. Throughout, the true form of God never appears to man, nor can he touch the body of God.

In the flower, which is God, there is no shape that is the true form, and there is no heart that can be called a soul. The form that people see as a flower is nothing more than an expression of their minds (a mental image), and the heart, or mind, that is thought to exist within the flower is

only the vanity of the human mind, bewitched and swayed by the form (concreteness) of the flower that has been turned into a mental image. When people look at the shape of a flower, they are not seeing its true form, and even if they attempt to enter into its mind, there is no mind they can enter.

Even though God is each tree, each blade of grass, each flower, God is always without form and without mind. Therefore, God is a formless form and a mindless mind that transcends human knowledge. In order to approach God and to know the mind of God, all human knowledge and inquiry are useless.

We must understand, before anything else, that we don't even have the right to talk about or speak the name of God.

B. The Garden of Eden

Although I realized fifty years ago that human knowledge is useless and that there is nothing people should do, I spent the ensuing years foolishly searching for

God, wandering around the periphery of God in the mistaken belief that there was something I should be doing.

The savior that could rescue me and the rest of the world was right before my eyes. I ought to have entrusted everything to the flowers blooming in the meadow and to the songbirds. Even if people do nothing at all, the grass and trees and the birds will save them.

Now I can declare with confidence that the *daikon*, the *daikon* flower, is God. Until now I have not seen the single *daikon* flower itself as God, but I have come to understand that once again.

In the whiteness of the *daikon* flowers that I know to be God, butterflies danced, and I was able to know that the whiteness of the flowers, bejewelled with dew sparkling in the morning light, is God.

Just like poet Basho, when he composed the haiku "Ah, how sacred / the light of the sun / on young green leaves", I can clasp my hands in reverence and kneel before the *daikon* flower. Even

if I cannot make a poem, my heart is singing, "Oh, the whiteness of the *daikon* flower I know to be God! Oh, the radiance and splendor!"

Until now I thought that if I buried myself in the flowers of the this natural farm, this paradise of white *daikon* and yellow rape flowers blooming in profusion beneath the cherry, peach, and apricot blossoms, at the very least I could escape being an idle observer of nature.

The sad truth is that, while being immersed in the natural world of this farm, I have done nothing but forlornly watch myself, a solitary farmer engaged in lonely amusements outside nature.

But now, even if I am alone, I am no longer lonely. I can always take a single flower, which is God, in my hand and converse with it. I have finally learned that, although God does not reach out to man, man can always talk with God and seek salvation. One can obtain great joy by participating in the work of God,

Living together with nature can first be achieved when people become God. when they recognize the mountains, rivers, grass, and trees to be God and become one with them. Until now I did not clearly understand these simple words.

In ancient times men must have been God and must have lived along with the ancient horses that also were God. It is no wonder that we look with envy at the lives of the nomadic peoples of Africa. In primitive times, at the very least, people must have made drawing close to God the most important goal in their lives.

The Meaning of Protecting Nature

The first thing you realize when you understand clearly that the grass and trees are God is the error in the expression "protecting nature." It goes without saying, of course, that to destroy nature is a betrayal of God, but the words "protecting nature," in that they imply that man is already separate from and confronting nature, are based on an erroneous view.

The two originally are one and ought to live as one. Never has there been an age like the

present, when God and nature and man are separate, in which people have forgotten God, consider nature simply as matter, mass produce and murder living things at will and with such ease, and destroy the natural world. It is clear that mankind's actions are not only physically suicidal but also spiritually suicidal.

Now that I have confirmed that the grass and trees are God, I can shout courageously. Rather than seek salvation in God, we must now assist God. To worship God and protect nature is to assist God and participate directly in God's work.

Now I am able to cry out in a loud voice before everyone. And now I can listen to your reply, whether it be yes or no.

Do not fell the oak, for it is God

Rather than being people who cut down the beech, let us be humble men who protect the tree.

Let us be people who are blessed.

If this shore is God's,

Rather than destroying the white sand and green pines and being despised by God, let us play on God's shore with the children,

Now that we know that the blood of the whale is the blood of God, let us no longer kill the whale but restore it to the azure seas as a guardian deity of the world.

Rather than becoming agents of the devil, murdering the earth, let everyone desire to become an angel helping God.

Let us return the earth once more to the hand of God.

On this earth, Hovers bloom, butterflies dance, birds sing.

There is no heaven other than this.

What can mankind hope for beyond this?

The rebirth of man and God

begins when we talk with the grass and trees by the roadside.

The rest we should leave to the hand of God.

Religious activity will be to worship nature and to protect each tree and blade of grass. There

are two paths for man, whether in politics, economics, or cultural activities, but the truth has only one path.

In the present age of deepening confusion, the path to the solution has been clearly expressed. The question is which path the human race will take.

No savior appeared in the past, and there is no need to hope for one in the future. In every age the savior is clearly manifest to people.

If there is no longer any need for the human race to brandish its foolish wisdom and search for God, neither is there any reason to seek for and pray to an invisible God.

We ought to believe in each tree and blade of grass before our eyes as God and live according to the providence of nature.

Like a flower blooming by the roadside, a butterfly fluttering about the flower, a puppy chasing the butterfly, we ought to sing in harmony with the songs of the birds, leap and dance and play as the dragonfly flies.

When we know that everything in this world is God, all of mankind's suffering will be completely dispelled. We will entrust everything to the hand of the perfect God. That is all there is.

This is the path people must now choose

Why Did I Lose Sight of God?

I would like, as a way of confession, to explain here why I lost the God I once held within my grasp and spent fifty long years wandering around the periphery of God, living a meaningless life without accomplishing anything. It may seem trivial, but in fact, I committed a great error.

In addition to lacking the devotion to hold onto God, I became increasingly convinced that there were no words to express God, had a lower opinion of myself than necessary, and was reduced to a helpless state in which I relinquished God.

Until now I have used words such as "God dwells in the mountains, rivers, grass, and trees"

casually, as if they were appropriate for expressing God. But now that I think about it, those words rose up like a great wall between God and me.

At a glance, the words appear to be a concrete shortcut for approaching God, but actually they only serve to hide God in the clouds, far beyond reach. To say that God dwells within the grass and trees implies that plants and God are *two*. It means that something called God has filtered into the plants that are called grass and trees. It means that grass and trees are nothing more than God's temporary lodging. Naturally people will wonder what it is that lodges deep within the grass and trees. Some will call it soul or mind, while others will see it as life. Some may speculate that God is some sort of spirit living in the grass and trees. Nevertheless, there is no way to ascertain what this thing really is. It is nothing more than an abstraction created by people's imaginations.

Be that as it may, by setting up this abstract idol of God within nature, I achieved a sort of reassurance. And it is also true that, with such vague, abstract words, I turned God into a hazy figure.

If we say that grass and trees are God, then we have to raise plants to the status of God. That is not an easy thing to do. Acting in a cowardly way, I hid behind the abstract word "nature" and assumed an ambiguous position in my search for God. Before I realized it, my own beliefs had faded away, and the result was that I fooled myself and misled the world.

The words "God dwells in the grass and trees" became a source of misunderstanding. I had to reach the conclusion that "grass and trees are God." It is only a simple expression, but on account of it I foolishly wasted fifty years.

Once I became aware that grass and trees are God, for the first time I was able to escape from idealistic concepts such as that nature and absolute nothingness are God. Of course, I think that my views of nature and of human life, as well as my view of society, have changed completely and that I am on the verge of a vigorous step forward to another stage.

Although I have derived great peace of mind from stating positively that grass and trees are God, on the other hand, I cannot help feeling a vague fear. These words will not be widely understood, and I suspect that not only will they be of no use but that they will actually meet with

resistance. That is the essential futility of words.

Once long ago, when I was in the mountains, I unconsciously wrote "The mountains, rivers, grass, and trees are all Buddha" on a piece of wood. And yet, afterwards I would say such things as that "God" refers to the absolute truth that transcends space and time or to nothingness, absolute nothingness. I even thought that, if I were to struggle to come up with an abstract expression for God, then rather than using words that would express God directly, it would be a more appropriate description of the reality of God to use a term like Lao-tse's "The Nameless."

In any case, I have explained God with different words according to the time, situation, and person. The fact is that on each of these occasions I sensed a kind of futility in these words.

The Name of God

Now I think that, rather than call God "The Nameless," there is no need to use a name at all. I say this not because God has no shape or form and therefore to give a name would be useless, but because God always and in every place is clearly revealed in a form and shape, and to each of these forms and shapes man has already given a particular name.

Man has given names to the grasses, trees, and all other things on earth, so there is no need whatsoever to add another name on top of those. Not only would it be useless, but it would also lead to even further confusion if we were to attach names such as Grass God, Tree God, Mountain God, God of Wisdom, God of Love, and God of War to each single thing.

Properly speaking, man is not competent to give a name to God. Furthermore, it makes no difference to all the things in heaven and earth whether they have names or not. Butterflies and dragonflies have no need of names. Thus, even though there is no name for God, we shouldn't try to create one. From the time that things are classified and given names, man's mistakes begin.

Around the world a number of gods with different names have been created. There is the Christian God, the Confucian God, the gods within the Buddhist religion, Buddha, and so on. Without these various names, people probably would have accepted the same God more quickly.

People would be better off without words.

Whenever different names are given to God, people are bound by the names, become confused, and are unable to approach the reality of God. One idea would be to remove this framework, but even that would not solve my dilemma.

The reason I feel a sense of futility is that I cannot prove that the grass and trees are God, but on the other hand, people say that the grass and trees are not God because they think they can prove it through science. In other words, the greatest source of evil alienating men from God is the accumulation of human knowledge. The effort to explain God is the same as turning one's back on God.

The more we read and try to understand nature, in the name of education, the more knowledge becomes something that distances people from God. Reading is not something to be used to increase knowledge. It is for removing mistaken knowledge.

If we read many books and discard our knowledge, what are we left with? There is nothing there. That is reality. When you realize that your knowledge is not knowledge, you will know the reality of God, and you will be able to penetrate nothingness.

PART 3: NATURE IS GOD

A. The Scientists Who Deny That Nature Is God

Nature is God. The statement that each tree and each blade of grass is God carries no weight at all with today's natural scientists. They are convinced that there is no truth other than scientific truth and therefore reject anything that cannot be verified scientifically.

Even if we say the mountains and rivers, plants and animals that make up the natural world are God, there is nothing to prove this, and the scientists think it is nothing more than nonsense. For them, nature is simply the matter and phenomena that become subjects of their scientific research.

Scientists, however, must beware of falling into a deep trap. Or rather, even as they start, they have already committed a great error. They proceed with their eyes closed to the philosophical proposition that human knowledge is impossible.

As Kant pointed out, human knowledge is unknowable, but scientists ignore the philosophical conclusion that "human knowledge cannot be realized," or, to put it another way, that man cannot know the truth. Even if they manage to ignore it, they cannot deny this philosophical principle.

Mankind, Which Does Not Understand Itself

Human beings do not even understand themselves. As Socrates pointed out, man doesn't even know that he doesn't know anything.

Have you ever thought about how the person you think you know yourself to be was formed?

It's not that difficult to prove that man is an animal that cannot know anything, that is not in a position to be able to know anything. In a country without mirrors, man lives his whole life without seeing his face. For example, a face reflected in a pool of muddy water is not a real face. You can stroke or rub your face, put that together with the reflection of your face in a mirror or in water, and based on that, imagine what your face is like. But that self is nothing more than a self compared with and distinguished from other people.

In other words, simply because your face reflected in a mirror is different from other people's, you think it is you. But in every case the means of identifying ourselves is nothing more than the mirror of relative thinking based on discriminative knowledge.

People do not affirm themselves with their own eyes, nor is there any self acknowledged by an individual, independent self. We simply believe ourselves to be a portrait created by other painters, raised by our parents and siblings, protected, taught, and given wisdom by many people in society.

We don't know whether our bodies, given life by the support of other people and our environment, are our real selves or not. It more often happens that we are unwittingly convinced that the ideas that we have absorbed from the people around us are ourselves. The fact is that people don't know their own true faces or their own thoughts.

B. The Errors of Science

Socrates started from the position that man knows nothing. Descartes, on the contrary, declared that "I think, therefore I am." Commencing with the conviction that people know themselves, he made human judgment his standard, established rules for the outside world, and analyzed the appearance of that world.

Because Descartes did not perceive that man knows nothing and had too much confidence in himself, he thought it was acceptable to control nature and the outside world, which stood in opposition to man, according to man's will. This idea formed the foundation of modern scientific civilization,

But this fictitious "I" cannot penetrate the true state of the outside world. It is only natural that Descartes' mistaken "I" exercises its selfish human knowledge, and in the process, misapprehends and harms nature, the other.

Starting from this error of Descartes, the father of modern science, man, who knows neither himself nor the other, has ceaselessly expanded his fictitious knowledge and has caused the rivalry of self and other, the falsehood of modern civilization, to flourish.

Man's greatest fault is that he reduces the value of nature, which is God, to the same value as himself, who is nothing but matter.

Human beings, who are the children of Mother Nature, are not able to see the form of their mother. Seeing their mother's breast, they mistake it for the mother herself.

At the same time that human beings do not know themselves, they also cannot know the other. When a person knows his mother, he can know for the first time that he is his mother's child. If he doesn't know his mother, a child doesn't know whose child he is. He is like a monkey raised in a zoo by humans who is convinced that the zookeeper is his mother.

Because people do not know who created them (the creator), they do not know whose children they are. Therefore, they cannot know why they exist in this world or what is the meaning of their existence. They have never once lived within nature nor seen its outward appearance.

Since people do not know themselves, do not know the other, and do not understand anything, they are all the less able to understand anything like God that is outside the human situation.

Scientists are convinced that even if they do not understand God, they can understand nature, but of necessity, if they do not understand themselves (or their domain), they are not able to understand the true state of nature, which is the other. Nevertheless, scientists attempt to know nature and even go as far as invading God's domain because they believe that the relative truth of science is the only path toward absolute truth.

Scientific knowledge is actualized only within a framework based on the concepts of time and space, so even if it achieves truth in regard to a localized place or time on a micro-level, it clearly will not result in an absolute truth that transcends space and time.

If it is understood that, from a philosophical viewpoint, human cognition is inconceivable, then it is apparent that scientists are not in a position to be able to know the reality of nature, which is an organic, integral whole, and that the nature that natural scientists are looking at can be nothing more than a single fragment of the outer layer of nature.

The accumulation of imperfect knowledge that cannot become absolute truth is not something we can use to understand nature but something that only makes us unable to understand.

Scientists may be frogs in a well called science, but that in itself is not a bad thing. The tragedy occurs when, not knowing the limits of their sphere, they become overconfident and think that the microcosm leads directly to the macrocosm.

C. The Errors of Human Knowledge

Science is not a goddess who serves to bring about the union of God, nature, and man, but rather, is an evil spirit who invites their separation and estrangement.

Acknowledging the fact that human understanding is fundamentally mistaken, the Oriental religion of Buddhism rejects knowledge acquired through mankind's discriminating intellect as nothing more than illusory knowledge. In other words, as man has accumulated and deepened his

intelligence, he has become ever more deeply confused and has fallen into a boundless hell.

Western myths also reject human knowledge, teaching us that since the original people ate the fruit of the Tree of Knowledge, mankind has been banished from the Garden of Eden by God.

In a word, the knowledge of scientists is discriminative and analytical. Fundamentally speaking, even if this knowledge is useful for taking nature apart and looking at the micro-world, it is of no use at all for grasping the total image and reality of perfected nature.

Nevertheless, scientists continue to hope that, by scraping together and expanding their bits of micro-knowledge, they will at last approach the real slate of nature. A good example of this are the scientists who study the phenomenon of life. They think that if they can uncover the source of life, they can elucidate the reality of life. They even seem to think that if we postulate that the source of life in the cosmos is God, then man can even elucidate God.

But no matter how much scientists dissect elephants and study the DNA in their cells, they still will not be able to understand the essential meaning of the life of the elephant, which, of course, is God. The DNA that scientists study, thinking it is the source of life, is actually not the root of life but is nothing more than the flower blooming at the tip of its branch. And moreover, no matter how much they investigate the tree's roots or flowers, they will not understand the life (the meaning) of the tree.

Before scientists investigate the phenomena of life, they must understand what life is and what is the true meaning of life and death. The phenomena of life and death and the questions of life and death that man must deal with are different.

The question for medical science is how to prolong life for as long as possible, even if suffering continues, while for mankind the important question is why people cannot die happily. The first problem that physicians must resolve is that the agony of death does not arise from the life or death of the body. For God, the cumbersome life of man is hardly a problem, but the child doesn't understand the parent's mind.

Because man is ignorant of God, he is indifferent to the destruction of nature. That is not to say that the people of the world who do not believe in God, even if they believe in science, think that

it is all right to destroy nature and kill God. People are instinctively drawn to God and try to affirm the existence of God through their senses.

It is human knowledge that obstructs God's wisdom. Of the various types of human knowledge, the most persuasive is scientific knowledge.

The words of a woman who says that diamonds are valuable because they are beautiful, of the scientist that they are high in value because of their hardness and usefulness, and of the economist who says that they are expensive because they are rare, are generally accepted. And yet all three are greatly mistaken.

To human beings, life is just another thing. The true value of a thing cannot be calculated by humans. And of course they cannot grasp its real state.

Scientists know almost nothing about nature. In the end, they are nothing more than idealists brandishing concepts (delusions) based on the ideas of space and time. They are not realists living in true reality.

What scientists must reflect upon now is that, despite the fact that they are not in a position to know God, they are under the false impression that they stand face-to-face with God's wisdom and have elevated themselves to be the kings of this world.

The investigation of the phenomenon of life in nature and man's pursuit of the true meaning, role, majesty, and sacredness of the life of nature do not simply belong to two completely different dimensions; they move in completely opposite directions. With the intention of turning toward God, mankind is turning its back on God and is beginning to kill God.

Scientists now are dazzled by the shapes and forms of nature and are trying to use their intellects as scalpels to dissect and analyze nature. The danger is that men will not notice that at the same time they are cutting apart their own hearts with these scalpels and that they are losing the ability to generalize about things. There may be something engaging about the "specialized fool" sort of scientist, who can see only the subject of his research, but when this condition intensifies, we would have to call it a form of schizophrenia.

It is inevitable that with the scalpels of dangerous scientists such as these the spirit and shapes

of nature will be cut apart, changed in form, broken, and annihilated. When you pick a flower, its life (beauty) is lost. When water is analyzed as H₂O, the spirit of water is no longer there to be found. If scientists were to realize that nature is God, they would be able to see how foolish it is to hack it to pieces.

By what means can scientists capture and give life to the truth, good, and beauty, as well as the love and joy, that are contained within nature? With what ideas can they judge right and wrong, good and evil, beauty and ugliness?

Man should not have disturbed a single tree or blade of grass. Without realizing that the self is in a world unrelated to God, scientists have unknowingly begun to intrude upon God's territory.

Man is not in touch with the heart of the natural world, nor is he standing face-to-face with the macro-nature that transcends space and time or with God. He has only been standing at the level of micro-nature, as seen from the human point of view, and spending his time tilting at windmills.

Artists are simply chasing their own shadows, and scientists are proudly toying with the ruin of nature, a cast-off shell without a soul.

Without knowing what God is or what nature is, man has used nature, sacrificed it, and built a civilization upon it. In addition, while knowing that the collapse of nature means the destruction of the earth and suicide for mankind, people are still turning their backs on God and heedlessly rushing forward.

People are under the illusion that human knowledge is superior to the wisdom of God, or at least not inferior to it, and far from desiring to return to God. They have begun to act as if they have taken the place of God and have become omnipotent, able to control nature, either to destroy or restore it at will.

PART 4: THE LIFE AND DEATH OF GOD

In response to the tyrannical arrogance of human knowledge, God appears to be Silent and powerless. However, God's judgment always seems to strike man in the form of passive

resistance. God's wisdom is perfect, so there is no reason for God to crush man's trivial knowledge.

Although an ally of nature. God is no longer an ally of man. While the human race is now building a society with a high level of civilization, at the same time it appears to be falling into deeper confusion and tumult.

Man has lost sight of the goal of human life but is convinced that, even in the midst of confusion, by single-mindedly pursuing the expansion and growth of human knowledge, he can maintain the prosperity of the human race. In a mad rush to acquire this prosperity, he has turned onto the path of estrangement from God and is in fact rebelling against God.

A. Men Who Kill God

We can even say that God is being obliterated from the earth by people who profess disinterest in God and pride themselves on following the path of moderation.

Generally the people known for their practical sense act as if they know it all and say things like this. "Nature is basically a thing of harmony and beauty, a loving mother who gently embraces and nourishes mankind. Nevertheless, at times she becomes a demon fiercely confronting man. We are able to see a world in which all things exist in harmony and prosperity, but we are also able to see scenes of carnage, as the struggle for survival of the fittest unfolds in every part of the globe, a world racked by the contradictions of good and evil, beauty and ugliness. To be at a loss to judge what is true, good, and correct, and what is wrong, is, in fact, the true state of nature.

Man has lived in nature, sometimes joyful, sometimes filled with sorrow. Isn't this the essence of man and nature? Isn't it dogmatic to make the sweeping statement that nature is always truth, good, and beauty? Isn't it in fact prejudice to see nature as perfection, as God, while seeing man as evil and deranged?"

At first glance this opinion seems sensible and generally easy to accept. One apprehends nature

with the senses, analyzes it with reason, incorporating with them an overall ability to make judgments based on human knowledge, so it appears to be an objective, accurate view. But we can say that both scientists and artists are the same, in that fundamentally they both make judgments employing discriminative knowledge and never escape the realm of relative thought.

The very fact that they see nature as one big world of contradictions, a jumble of beauty and ugliness, good and evil, strength and weakness, proves that theirs is a micro-concept bound by the idea of space and time.

Seen from a macro-perspective, nature is a world of beauty that transcends beauty and ugliness, a world of great joy that transcends good and evil. Whether we see this world as a world of contradiction or a world without contradictions that is perfectly universalized and harmonized is determined by whether we cut nature into pieces with discriminative knowledge or grasp the entirety of nature without making any distinctions.

Within a nature that has been taken apart and dissected with discriminative knowledge and then left as a dismembered corpse, there is only a scattering of false truth, good, and beauty. Scientific, practical human knowledge and human actions that appear logical and rational will kill nature and destroy the human race.

God, Nature, and Man

We would have to say that, from the time God is said to have driven the original people from the Garden of Eden, man and God have been separate from each other. It has been thought that since that time men have been lost sheep who have never stopped longing to return to the fold of God. But can we really say that modern man is seeking salvation in a return to God? It seems, rather, that with their overweening pride in human knowledge, people are under the illusion that human knowledge surpasses God and have begun running wildly about looking for something higher than God.

In modern society, nature often ends up becoming a subordinate of human beings, made into an

idol to be worshipped or made the object of natural preservation for the benefit of man or for man's artistic appreciation,

Against man's violence. God is powerless and puts up no resistance. Taking advantage of this, man uses and kills nature, which is God, with the greatest ease and indifference. However, once man destroys nature, which is God, on what can he rely for his continued existence?

Does man think that by obliterating perfect truth, the true truth, good, and beauty that exist only in nature, and eliciting a false joy from the fictitious truth, good, and beauty created by human knowledge he can have a life more pleasant and worthy of man?

The death of nature is the same as the death of God, and the death of God means the death of the human race, but people believe that even if the human race should disappear from the face of the earth. God will remain and exist forever. They believe that by the hand of God they will be brought to life again. If we look at this realistically, however, it is nothing more than a wish man cherishes, and the human race will not be born again.

When the people on this earth have died out, there will be no God to mourn them.

People seem to believe that even if they die, a soul or spirit will live on, but if they die, there will be no God or Buddha.

The human soul has no existence or immortality. This is reality.

I am not speaking from the viewpoint of human self-interest, which would suggest that if the human race perishes. God's continued existence would be meaningless. The idea of life and death is based on the concept of space and time. If we speak within the framework of space and time, then God must die with man and must be seen as sharing man's fate of having life.

But the actual situation is that now, on this small planet called Earth, people of every nation and race are competing fiercely to increase their military strength and, in the name of development, are pushing onward to the destruction of the globe.

No one rationally thinks it is good to destroy the earth, but in actuality people are killing God, and conceptually they are presuming on God's benevolence and wasting their time in idleness. While it appears that there is no animal so clever and rational as man, in fact he is a foolish

animal, lost in idealistic dreams.

Ever since God drove man from the Garden of Eden, man has pursued and tried to kill God with his knowledge. We could say that he has never seen the form of God directly, but has only seen God's shadow. But if he will just empty his mind and regain the heart of a child, at any time and in any place this world will change into the world of God. and both mankind and God can be reborn.

Because they do not know that the cherry blossom, the *daikon* flower, and the songbird are all God, people are confused and suffer many hardships. In speculating that God is something of the mind, perhaps a spirit or life itself, people have driven God far away.

Even though they have been able to feel God at times, such as when they came in contact with the natural world or looked at a flower, or when they climbed high peaks or journeyed deep into the mountain and sensed something sacred there, they couldn't imagine that a flower or mountain could be God, and thus longed for a God in heaven.

And yet this sort of aesthetic sense, receptivity, and understanding are man's most important instincts (his true nature). Unfortunately, however, man's true nature is clouded by human knowledge, and he has become unable to use his five senses and his instincts to their fullest. Man looks at things with various filters placed before his eyes. Even his brain works only after receiving various pieces of information and knowledge as instructions. For this reason, when he looks at a flower, he cannot see the real flower.

Not only are his eyes clouded and his brain in disorder, but his body also has lost the natural form of a newborn baby and has become misshapen. Without knowing what kind of food, housing, and work is good for him, he runs about in utter confusion. Consequently, in both mind and body, man has become an unnatural, imperfect, unbalanced animal. He cannot see real things or make true judgments. Even if he sees God, his vision is obscured, and God inevitably remains only an idea. While looking at God (a flower), he can only see a flower (human knowledge).

Nevertheless, man's true nature is to be a natural man, and he has not entirely lost the instinct to return to nature. It is just that the present time is out of joint. and his body and mind have been

torn into a thousand pieces. When he looks at something, he can only see many small fragments and draw conclusions from them.

Therefore, he cannot grasp an entire thing at one time, but stops at seeing only one side of the outer surface. Even if he is momentarily able to grasp some phenomenon within the entirety of nature, in the end man is unable to see or imagine the eternal, original form of God/nature. He loiters around the periphery of things and phenomena, simply drawing a number of arbitrary conclusions, and finally constructs an idol of a god called modern civilization, while at the same time distancing himself from true nature, which is the real God. These days mankind seems to be flying as rapidly as possible to some distant space far removed from the vicinity of God.

Are people abandoning the earth in search of something in outer space? All they will find is emptiness.

B. Men Who Keep God Alive

Perhaps the only people who can perceive that nature is God are a few religious people, artists of great receptivity, and the like. With their sensitivity, they ought to be able to perceive, at the very least, that nature is something close to God.

The poets who write about nature, the painters who turn it into pictures, the people who listen to the music of nature, the sculptors I would like to believe that they are the ones drawn to what is essential in nature, who are pressing on toward the God which is its reality.

And yet, no matter how much we may call someone an artist, if his understanding of nature is mistaken or, in the case of the religious, his position is not correct, then no matter how keen his sensitivity is, no matter how excellent his power of expression, no matter how refined his technique and style, he will probably stray onto a side road and not be able to approach God.

Only the sensitivity of the detached mind can perceive that nature is God. The path to religion and the path to art are intrinsically one, and their goals are the same. That is because there is no world of perfect ecstasy outside of nature, and perfect truth, good, and beauty exist only in nature.

All paths lead to the path to nature, and on it we can at last arrive at God.

The true goal of both artistic and religious activities is to root out the self and to return to the seat of God. In order to achieve this, there is no other path for man to follow but to ceaselessly strive to extinguish the ego, return to a mind stripped bare, plunge into the bosom of nature, become a sculptor of nature, and give concrete form to its mind in himself. However, it is impossible to know where the true self is, and we would have to consider contemporary artistic activity, with its absorption in self-expression, to be distorting human sensitivity and contributing to the suicidal destruction of the human spirit.

The value of a Van Gogh painting does not amount to that of a single sunflower. A painting is not equal to the true God. The fact is that it is very easy for those who love beauty, who are close to God, and who are faithful to God to become proud, to become traitors who kill God.

Art is something God creates. When man makes art. God dies.

The Garden of Eden

It is generally thought that the myth of man being driven from the Garden of Eden by God is about primitive man living long ago, but if we remove it from the dimension of time and look at it with God's eyes, then the Garden of Eden exists even now, and children's eyes are able to see it. God and man coexist. To put it in more concrete terms, spring on this natural farm is the Garden of Eden, The blossoms of the cherry and peach trees, which are God, open, and beneath them the white flowers of the *daikon* and the yellow rape flowers bloom in profusion, while butterflies dance about and the birds sing. When you know that these are all God, then God comes to life again, and man can also become a God.

What I am saying is most realistic and correct, but there is only one means of proving it. It depends on whether or not a person is able to become detached and to see this sight. If he doubts and looks with a mind of attachment (the view based in space and time), the flowers will be only plants, birds and children will be simply animals, and God will no longer exist.

PART 5. WHAT RELIGIOUS ACTIVITY SHOULD BE

The Merits and Demerits of Organized Religion

In the past, whenever the world has fallen into disorder, religious movements have flourished. The present age is one of those times. The wisdom of God has never been needed, on a world scale, as much as it is now.

Disorder in the world begins when men's hearts are in disrepair. There has never been a generation like the present when people have felt so perplexed. This is true of every area of life — politics, economics, education, and culture. It is also evident in the degradation that comes from the luxurious material life produced by the current trend to materialism and the ugly sight of industry, government, and the military, having joined forces, intensifying their struggle for power.

Looking at the present fin de siècle mood, we can also see that the religions of the world, old and new, large and small, are becoming very active. It might appear that people are responding to this increased religious activity by humbly hoping for the rebirth of God and seeking God's salvation, but the actual situation is just the opposite.

People are under the illusion that God exists for the benefit of man, and they seek God's help only when they need it. But God doesn't rescue people. Rather than praying for the rebirth of God, they should first try to accomplish their own rebirth and revitalization. Instead, they put off rectifying their own mistakes and simply rely on God. Moreover, it is selfish to say that you will borrow God's teaching and wisdom for the purpose of reforming yourself. Accomplish your self-reform, and the wisdom of God (truth, good, and beauty) will be given to you. We must accept the fact that there will always be a gap between human knowledge and God's wisdom. God does not rescue people. We must not think selfish things, such as that we will try to pluck up a portion of God's wisdom or to have share in God's salvation and grace, as interpreted in human terms.

Furthermore, to try to propagate God in the world or to make false proclamations and preach

the salvation of the world, without having been able to reform oneself, is tantamount to blasphemy against God.

Fundamentally, to preach the teachings of the gods and Buddhas is impossible and should not be attempted. If there are no words for explaining God, neither are there means for spreading belief in God. The question of how to carry out religious activities has been a fundamental problem for religions both in the past and today.

The people who say that there is no need to spread or propagate belief in God are, on the contrary, the people with the deepest faith. That religions are essentially incapable of transmitting teachings can be proved by the fact that, philosophically speaking, human knowledge is incomplete and, as Kant pointed out, is nothing more than unknowable knowledge.

People who are not conscious of the proposition that man is an animal that cannot know a single thing and who carelessly believe that everything can be expressed with words are the ones who throw themselves into religious activities. The transmission of God relies only on the unspoken word. No matter how much you listen to the voices of saints, there is no guarantee that you will understand God.

Those who know God always come into existence in an intermittent succession, in a way that transcends time and space, and the saints (true sages) who have accidentally appeared from ancient times are able to confirm this.

Sakyamuni Buddha, Lao-tse, Christ, and Muhammad all appeared at different times in different places, having no connection with each other. The only thing that can be said to link them is that they affirmed a single, absolute God. The truth is one and it is eternal. Only the people who know God can achieve this one and only transmission. In other words, we would have to say that, since comprehending God is so difficult it is almost impossible, not only evangelizing and making proclamations, but also religious activities such as worshipping God or preaching and praying are essentially impossible and also unnecessary.

God is preached, shrines and temples are built, and ceremonies for worshipping the deities are carried out on a grand scale by religious fakes and idealistic religious people who don't know God

at all. The true God doesn't need shrines or temples. Even if an idol of God is of some value in helping people draw closer to God, it is too likely to lead them astray.

When we approach the end of an age, things like spiritualism, magic, faith healing, supernatural powers, occultism, and esoteric religions run rampant. I am convinced that religions that try to express the deities in terms of spirits and ghosts are the greatest source of evil sending religion down the wrong path.

One would think that, when I say "The grass and trees are God," religious people would be the first to agree with me, but in fact the opposite is more likely to happen.

Religionists are people for whom directly grasping God is their goal and their work, and you would expect them to desire the salvation of God, but contemporary religionists are intent on reviving a God already created, rather than seeking a new God.

There are few seekers of truth who aim at an affirmation of God. Today it is a *concept* of God that has taken hold in human society, and the position of the idol God is maintained by religious specialists and believers. Therefore, rather than going to the trouble of searching for a new God to deliver them from the confusion of this world, it is easier for them to distance themselves from God and hide within an empty old shell. Rather than abandon human knowledge and seek the true God, modern man searches for God in the Bible or the Buddhist sutras, combines philosophical conclusions with scientific knowledge, and generalizes God as a religious concept. If this serves the purpose, then he feels reassured.

In my view, the gods and Buddha are essentially one, through and through, and there is no need to make any distinctions, but still, I am concerned about the degeneration of Buddhism.

Rather than embodying the deepest mystery, esoteric religion is just an entrance. It can be tolerated, along with Hinayana Buddhism, as a means of leading people toward God, but it cannot become the main path to God. Even among naive religions such as mountain worship and primitive Buddhism, there are some that appear to be a shorter way of approaching God, but in the end they are still only expedients. Recently religious rituals involving guardian spirits, incantations, charms, and faith healing are being used by occultists and religious fakes, but there

is not other way to approach God than to cleanse your mind and body through your own effort, in other words, to become detached. The form is not important. Even earnestly sitting in Zen meditation, when you come right down to it, is the same as the way of the samurai (the path of martial discipline). The point is that you cannot approach God by simply relying on another power and praying to the deities.

A. God and False Gods

Let me give one example of a religion that preaches wealth and good fortune. A young man who was worshipped as the founder of a religion in Kobe came to my place with ten or so of his disciples. He was revered as the founder of this new religion, but when he read this passage from my writings on "mu" (nothingness), "God knows everything, and says not a word. Man cannot know a single thing, and talks about everything," he was astonished. He realized now futile his efforts were and said he wanted to become a natural farmer.

This young man said that he had received various kinds of training to transform him from an ordinary religious person to the founder of a religion. He had made a strenuous effort to learn such things as physiognomy, mind reading, fortune-telling, palmistry, divination, hypnotism for healing disease, exorcism, and various ways of communicating divine messages, such as writing on sand. He brought with him a written disclosure that related in great detail the schemes he had used to get believers into the palm of his hand, starting with tricks for determining, on the spot, a believer's character and problems, and including methods for attracting new followers and collecting information.

The deities are silent and do nothing, but the religious fakes, who hold both the deities and the people in their hands and run around acquiring believers in order to make money, can easily make use of the name of God. Nothing makes a more powerful weapon. For God, existing outside space and time, there is no past or future, but man is plagued by remorse for the past and anxiety about the future. When I hear about how they take advantage of this human weakness, torturing people

with fictitious past sins, intensifying anxieties about the future and threatening believers with them. making fools of them, rather than being angry at their blasphemy of God, I am led to reflect on how man is nothing more than an animal dancing to the tune piped by ideas.

The name of God is sometimes used by men and is made into a kind of spell, a strong chain that binds people and shuts them up within a prison called religion. Whether religion becomes a narcotic like opium or a secret remedy for liberating mankind depends on the people who use it. We can only say that those who mislead and those who are misled are fools. How unbearable the world of man has become.

Religious leaders forget their own religious awakening, create huge organizations, form factions and erect great temples and shrines, so no matter how much they praise the deities, no matter how much the rich man stores up gold and silver and flaunts his power, they are like a camel trying to pass through the eye of a needle.

The time has come for people to cease being infatuated with the deities

When we empty our minds and meet with nature, each tree and each blade of grass is transformed into God.

Even if the trees and grass say nothing, the voices of the birds and the eyes of the frogs and dragonflies will teach man the highest truth, the greatest good, the most sublime beauty.

Then there will be no need for sacred scriptures or sutras, and the dragonfly will be the messiah.

A single flower will cleanse man of his past sins and tell him where his future happiness lies.

There is no longer any reason to be confused.

The words of Christ, that even Solomon in all his glory could not compare with a single white lily, convey an eternal truth.

The smile of the Buddha, when he stood atop a mountain and held up a single flower, must not remain an eternal riddle.

B. Religion and War

Man is the only living thing on this earth that wages war. Other living things do not even do battle in earnest. Humans are the only ones who go to the foolish extreme of fighting wars, and no other living thing imitates this stupidity. Why is this so?

When we look for the reason why unsettled quarrels between individuals, disputes between tribes, conflicts between countries, friction between races have now developed into great wars, it all started when people lost sight of God.

When people struggle over food or riches, as they did in the past, there is a possibility of concluding the fighting, but the most pernicious forms of struggle, a veritable bottomless pit, are ideological and religious wars.

Where ideology is concerned, the source of man's ideas is God, and religious wars are provoked by religious differences, even though God is one. While groups of people appear to have different gods, in the end it is only differences in the way of looking at or interpreting God, and conflicts simply arise from distortions of God.

In other words, from the time that mankind lost sight of God, a hodgepodge of gods has been created by different peoples. From the time that man began to live according to his own selfish ideas, the embers of conflict began to kindle. Furthermore, mankind's goals have been decided on the basis of human knowledge. and when these goals, based on selfishly decided laws and wars, begin to bind people, individuals appear who try to escape from these strictures, and then the coals flare even brighter.

The law of natural providence, which is established by God, is based on immutable truth, and thus if each plant and animal lives in obedience of this law, all will enjoy everlasting peace and happiness. But because the laws made by man are always imperfect and are filled with errors and contradictions, trouble inevitably occurs.

The world of mankind never leaves the realm of relative contradictoriness. When we pursue wealth, we are shadowed by poverty. When someone is a winner, someone else is a loser. There is no pleasure without pain, no beauty without ugliness, no joy without sadness. We must part with

those we love, and life is simply the reverse of death. In this human world, whatever we think and whatever we do is filled with contradictions, and there is no way to escape our distress.

Even though they know that this world is a world of relativity and contradictions, people make no effort to transcend these contradictions. (Other animals are transcendent, living in an absolute world.) While acknowledging the contradictions, they try to be satisfied with a modicum of peace of mind and happiness.

The laws and morals of men are mostly for their own benefit and are not precepts for the purpose of pursuing and remaining faithful to a knowledge of what is the true joy and peace given to men by God.

Since losing sight of God, humans have been lost animals without a goal. They have lost true joy and pleasure and live in futility. They struggle bitterly to acquire a false joy and happiness with human knowledge, which is the exact opposite of God's. But it is only natural that, because the things that they are seeking are empty, at certain times and under certain circumstances the contradictions are revealed, and the result is failure.

For example, even if a messiah were to appear, modern man probably would not have ears to hear his words. Even if we say that there is no beauty superior to that of the white lilies of the field, artists will voice disagreement, and the women of the world will probably not stop using makeup.

If they were to see the present situation, in which man is spreading poison on the earth and killing the birds and beasts, Christ would be appalled and Sakyamuni would weep, but the farmers would probably say that no one has the right to stop their activities.

I do not know if Sakyamuni actually said not to kill cows, but at the time there was probably no way to anticipate that cows would increase to their present numbers in India, eat up all the grass, destroy the vegetation, and turn the country into a desert.

The meaning of the Buddhist commandment that forbids killing is that one should not kill unnaturally. If it is wrong for man to sacrifice the lives of cows, it is also wrong for him to cause them to live unnaturally. We would have to consider all decisions made with human knowledge

and all human acts to be evil. At the very least, we should not kill plants and animals unnaturally or cause them to live unnaturally. To kill tigers and elephants while protecting cows is unjust and destroys the balance of nature. The true meaning of Sakyamuni's words must have been that man should not use human knowledge to interfere with nature. Because of a commandment not to eat fish, many people in Africa are starving even though the rivers are teeming with fish.

There is nothing so easy to distort as the word of God. The same can probably be said of the Jewish prophecy of the end time. According to the Jewish books of prophecy, war will spread throughout the Middle East, some country will invade the area, the rest of the world will join the fray, and in the end nuclear winter will destroy the earth. They say that after this only the chosen people will be returned to life, but it is hardly likely that God would prophesy the destruction of the human race. Only man prophesies about the world of man. God is not a prophet. While able to discern man's future. God does nothing. God is silent. It is all up to man.

My fear is that people will appear who will use this scenario, mislead people, and try to achieve their own sinister designs. The only thing that can completely shatter this evil drama written by man, break free of the world of relativity, and unify all in the absolute world is the wisdom of God.

There is also current a Buddhist eschatology concerning the 21st century. I doubt, however, that Sakyamuni was worrying over the condition of the world three thousand years later and lamenting the last days. He was pointing out that the people of his time were not living true lives but were existing in an eternal hell. Sakyamuni never taught anything about the future of the human race or about some place called "hell," so there was no reason for him to be worrying about our present time.

Today Japan has lost its beautiful coastline, once celebrated for its white sand and green pines. The mountain vegetation is half gone, the rivers are dying, and we could say that God is already half dead. Without God, there is no truth. Without truth, there is nothing worth believing. Now people are just running about aimlessly and displaying their shame to the world.

It makes me doubt whether there is a future for the islands of Japan.

C. A Life of Natural Culture

If I take people to task, saying that human civilization is a foolish, anti-God civilization, I will hear the retort, "Then where is the civilization of God?" The true civilization, the civilization of God, has no name as yet, but here I will call it "natural culture and civilization," Natural culture is a way of life in which people enjoy the truth, good, and beauty that comprise the vital organs of nature.

The true civilization and cultural life of man is a life in the midst of the abundance of nature, in which man, with freedom in his heart, climbs mountains, plays in the meadows, bathes in the delightful rays of the sun, breathes the pure air, and drinks his fill of the joy of life.

When we are truly alive, every day enjoying delicious flavors and delighting in beautiful forms, then everything is sufficient. The ideal society I am describing is one in which all men will hold the entire world within their grasp and will create a free, generous community.

Originally civilization based on human knowledge must have begun when men yearned for the natural civilization they had lost. But human knowledge could not grasp the reality of nature, and instead became distorted, began to run in an anti-nature direction, and inevitably constructed a false civilization.

If man can regain his original nature, he ought to be able to live at peace in natural civilization, but seen through his polluted human knowledge, natural civilization must appear to be monotonous and primitive. Contemporary man looks back and longs for the natural life and yet, if he lives in the city, he is bewitched by modern civilization. He is at a loss, not knowing which way to go. He is a lost sheep, unwittingly straddling the fence that divides nature and anti-nature, and is unable to break free of the world of relativity.

From the time that primitive man is said to have been driven away by God, man has degenerated into an anti-nature animal. The more people pride themselves on their wisdom, the less they know of God. They are nothing but evil, sinful people carrying forward the destruction

of nature. Only fools with empty, detached minds, who live in a nature that transcends intelligence and foolishness, can approach God and protect nature.

But now modern man thinks he can strive for harmony with nature while enjoying civilized life. That is like trying to catch fish in the trees. All thought and action based on discriminative knowledge is fundamentally opposed to nature. Of course, civilized life has already exceeded the bounds of human authority in its striving for a harmony that protects nature. It is absolutely impossible to adjust the natural order with human knowledge.

On the macro level, humans have launched efforts to develop space and have set about churning up the universe. On the micro level, they have exposed the microscopic world and trampled with muddy feet on the source of the phenomenon

of life. They have begun a reckless attempt to control, at will, the lives of all living things. It is clear that, having come this far, the development of human knowledge has begun to shake nature to its very roots and has approached the utmost limits. Which is to say that the destruction of nature also is approaching its utmost limits.

Once the primal source of nature is destroyed, it no longer has the power to restore itself. The natural universe is an organism generalized under the name of God. They say that now one species of living thing on this earth becomes extinct each day. The disappearance of one bird or one plant is not just the death of the bird or plant. It is of grave significance, being connected with the destruction of the balance of plants and animals, the destruction of the harmony of all living things on earth.

Now man rules the earth like a king standing atop all the other plants and animals and cares not at all about the selfish destruction of nature he carries out in the name of civilization. Nevertheless, man has not become a superman capable of ruling the world in place of God. He has simply degenerated into an agent of the devil, who has made his purpose in life the ruin of the earth.

The scholars, politicians, and businessmen who take pride in human knowledge hope to raise the curtain on a splendid global culture, but their tactics are filled with the risk that they will in

fact over the curtain on the earth, bringing about its extinction.

Advances in human knowledge are of no use in gaining the enlightenment of God. Today man is unaware of the fundamental principle that civilization comes into flower in inverse proportion to the flowering of nature, and tomorrow will be too late.

Of course, all sorts of data regarding the crisis of global destruction have been presented by people of sound judgment. But people who are filled with a sense of foreboding are wondering whether we can solve or at least evade the problem using human knowledge. Or else they hope to be rescued by God or lose themselves in indolence. But the destruction of nature is directly linked to death of God. The salvation of God will no longer be available then.

The only thing that can rescue the human race is man himself. Moreover, human knowledge will not save the human race. It can only be saved by abandoning human knowledge.

There has been only one thing for man to do, both in the past and now. That is to return to true nature and rely on God for support. We must put ourselves at the service of the revitalization of nature. That is the only work allowed to mankind and the only path to the continuance of the human race.

For that reason I am convinced that the only thing for man to do now is to participate in the greening of the earth.

Fifty years ago, I began a method of natural farming that does not involve cultivating the earth. The significance of this, it goes without saying, lies in the fact that, by proving that the culture (cultivation, tillage) that formed the basis of Western culture is meaningless, I have negated the basis of civilization (culture).

The time has come to put an end to the human delusion that building a desirable human life with technology, without leaving nature to nature, is civilized life and the advancement of mankind.

There is no happiness for mankind in estrangement from God.

CHAPTER 2: WHAT IS NATURE?

PART I: AGNOSTICISM: MAN CANNOT KNOW NATURE

A. The World Is Not Relative

It is extremely easy for a man to kill a firefly. He can also nurture it and cause it to increase its numbers. But he cannot create a firefly, because he cannot read the firefly's mind.

While modern civilization says, with the utmost ease, that it is making the most of nature, it has continued to destroy nature. As a result, the earth is now in danger. The most important thing is for people to realize that they cannot know what nature is. They simply distinguish red from green, based on their relative discriminative knowledge, and they do not know what it is to truly know. They are unaware that their knowledge is as different from grasping the true state of nature with enlightened perception as night is from day.

Natural scientists believe that they know nature well. Even when they do not understand something, they suppose that eventually, through classification and analysis, they will be able to know everything about it, not only its form but even its life and soul. But the nature that men make a subject for study is not nature in its true state.

What does it mean then for man to know nature? It is said that man knows the mountains, rivers, grass, and trees before him when their images have passed through the lenses of his eyes and been deciphered by the computer of the brain cells. And yet, even though the earth has been photographed from satellites, so that we know it to be a blue planet, that does not mean that we know its true state.

Philosophically speaking, human knowledge is nothing more than man's relative notions that have been built on the basic concepts of time and space. All philosophers must be familiar with Kant's statement that in theory human knowledge is impossible.

The nature that people think they know is nothing more than a false conceptual nature that they willfully concoct inside their own heads, based on a human point of view. Naturally their value judgments fluctuate according to time and circumstance. The moon, snow, and flowers are all said

to be beautiful, but the estimation of the beauty of a single branch of cherry blossoms depends on the person, and human society tells us that it is up to us whether to kill something or give it life. So what is the true form of nature? The time has come when the human race must consider deeply and ask in all earnestness what is the nature that exists in truth. If we do not, nature will be extinguished from the earth.

When we consider the matter from an absolute point of view, beyond space and time, then even space and time, which are believed to exist transcendentally, have the same relationship as a point and a line. The fact that we see them as two is merely the product of our relative, discriminative viewpoint. In other words, the time and space of this world are essentially one, and are the same as zero, nothing, emptiness. If we consider them from an absolute point of view, they do not exist. If this alone were known, both man and his society would change completely and return to a correct way of life.

If time and space have simply been created by human concepts and do not really exist, then all the things and phenomena that people know with certainty and believe to exist become a world of fabrication, and value judgments regarding everything are shaken to their foundations. This is what the Buddha referred to as "things turned upside-down." Nowadays, we cannot find anyone who truly understands the idea of "things turned upside-down."

For example, what would happen if there were no clocks? We could say that the biggest difference between humans and other living beings is that humans have clocks. For this reason, man has created fast-moving vehicles and has become busy as a bee. He is unable to give himself up to the eternal flow of time and to pursue a life of knowing nothing, doing nothing, and owning nothing.

Westerners call me a "do-nothing man," but I simply threw away my watch. In fact, fool that I am, I even discarded the Buddha.

As long as natural science continues to proceed under the illusion that the view of nature constructed on the false notions of space and time is the true nature, the human race will probably continue to destroy the earth without even catching a glimpse of the reality of nature.

"What is the true nature that exists beyond space and time?" As I have stated, "Nature is God." Nature and God are one, and the true aspect of nature is the true aspect of God. It can be said that God created this world, but it can also be said that nature is creating God.

If we make nature into a mental image, it becomes God, and God, expressed concretely, becomes nature. Consequently, (the heart of nature is the heart of God, and life is the will (life) of God that is at its source, the joy (boundless love) of living.

In the eyes of man, the mind of God is a great conductor, whose baton (natural law) directs all the movements of this world, and this mind is breathed into the life (genes) of living beings. Scientists suppose that if they can clarify the nature of the gene, they will understand God, but God stands outside the gene. God's mind lies not only within living beings but is omnipresent, flowing through all things and phenomena.

Although the shape and form of God are before man's eyes, day after day, he cannot see them. nor can he know God's will. He can only instinctively infer the genuine truth, good, beauty, and love in which the mind of nature is embodied.

The reality of nature is not something that can be understood simply by analyzing with a computer the nature that man confronts everyday. If we do not know God, we cannot know nature, still less give life to or kill it. If you wish to know nature, there is no other way but to become one (unified) with nature, which is God. Only when we live together with nature and take refuge in the bosom of God will we be able to serve God and protect nature. Man cannot and ought not do anything apart from God.

Fifty years ago I realized my own foolishness and went into the hills. I hoped that, without my doing anything, nature itself would create for me a natural farm. So I simply stood by and watched the changes of nature. But nature is not indulgent with a lazy farmer, and I was given a stern lesson regarding the difference between nature and nonintervention. After fifty years the only thing I have learned, despite all my experiences, is how foolish I have been and how useless were my efforts.

By chance, for the last ten years I have been able to travel in Europe and the U.S. and to visit

Africa. India, the Philippines, and Thailand. These were journeys in search of nature's true form and of people who could affirm that they knew God. But the nature I sought had almost died out, and the people I was looking for were nowhere to be found. I had thought that there was no need to do anything and that there was nothing to do, but I realized that there was one thing that had to be done, that I could do, to create a world in which it was not necessary to do anything.

When I saw the earth, which I had thought to be a Utopia where one should not have to do anything, turning into a lost paradise, I knew that what had to be done to bring the natural world to life again was to sow seeds in the desert.

B. The Windmill of Cause and Effect

While the world of man is said to be shrouded in mystery, it also is said to be a relative world. But is it really relative? Humans can only think in relative terms, so all the things of this world simply appear to be relative.

In any case, from the human viewpoint, there is nature, and there is man. Once man has made this observation, nature comes to exist, for the first time, according to his judgment. In his conceited view, man and nature rule the world, but human judgment never exceeds the narrow bounds of discriminative knowledge. It only appears that there are dualities among all things — large/small, many/few, before/after, left/right, superior/inferior, high/low, far/near, slow/fast, dark/light, plus/minus, and so on. Even in his actions, which appear to be free, man can only choose between those that are natural and those that are opposed to nature.

Because human thought and action cannot break free of this relative view, the tragedy of man is born at the point where he is bound to the framework of cause and effect. Both the advocates of nature and those opposed to it are taking part in the same tug of war, the only difference being at which end of the rope called nature they stand. That is indeed a case of cause and effect.

The outcome of everything that man does is the result of cause and effect. In other words, man's actions are thought to be governed by the law of causality. Human judgment says that if

something good is done, a good outcome will result, and that bad people will be punished. The order of human society can be said to be preserved by this law of causality, but as a result, man becomes a slave to cause and effect. Because natural science also believes that everything comes into existence according to the law of causality, it is bound to that framework.

This law of causality, born of man's relative view, appears to be correct and useful according to man's limited field of vision, but it becomes meaningless when considered from a broader point of view.

As a way of explaining how man cannot easily grasp the relationship of cause and effect, let me talk about my own experience.

Lovely green pine trees growing on white sandy beaches have long been a representative landscape of this island nation of Japan, but about ten years ago the pines began dying left and right. In about five to ten years, the beautiful pines covering the hills of Japan have almost disappeared. The Regional Forestry Offices determined that the source of the damage was a nematode (approximately one mm long) carried by a long-horned beetle. During the past ten years they have conducted aerial spraying of the insecticide Simethion throughout the country in an attempt to exterminate the beetle.

My own village is in an area of red pine forest that nourished the growth of *matsudake*, a mushroom highly prized for its flavor. I was unable to sit by and watch as the large green trees around my farm suddenly died, one after the other. Having my doubts about the experimental method that had determined that the beetle and the nematode were the culprits, I put my past experience in plant pathology to use and spent three years doing research in my hillside hut.

The Forestry Offices' theory was that when the beetles laid their eggs in the tops of the pines, the nematodes living in their bodies invaded the trees, entered the vascular systems, and multiplied, blocking the passage of water up the trees. This was said to cause the pines to suddenly wither and die in summer. My experiments showed completely different results.

- (1) Healthy pines are not likely to die, even when inoculated with nematodes.
- (2) The filamentous fungi (according to the Forestry Offices, non-specific blue and black

molds) that feed the nematodes are not present in the trunks of healthy pines. (The nematodes cannot live on pine sap.)

(3) In the trunks of pines that had begun to show signs of dying, however, I discovered three or four new types of pathogenic fungus (eumycetes), thought to have been introduced with imported lumber, that I was able to isolate and culture. However, even when I inoculated pines with the hyphae that these fungi produced, they had little parasitic effect. They were nothing more than indeterminate pathogenic fungi.

(4) The pines first showed physiological abnormalities when the mycorrhizal fungus living off the roots disappeared. (The pine and *matsudake* are symbiotic plants. The *matsudake* fungus breaks up and penetrates stones, absorbing minute amounts of nutrients that it then supplies to the pine.)

The *matsudake* fungus is rapidly dying out throughout Japan. The direct cause is that it is being preyed upon by black linear fungi (as I call them) that seem to be non-specific fungi.

What has caused these black linear fungi to increase so rapidly in Japan's pine forests? What has given rise to the aberration among the microorganisms of the soil? It has been established that the soil of the pine forests is becoming strongly acidic, but even though I suspect that there is a direct relation between the black linear fungus and the microorganisms in the soil, and that acid rain is the source of the acidity, I cannot say so with certainty. I have not yet reached a conclusion, but in relation to the cause, my results are exactly the opposite of the theory of the Forestry Offices. The source of the problem is that the *matsudake* fungi have died, and as a result the pines have grown weak, filamentous fungi have invaded their trunks, and finally, nematodes that feed on those fungi have invaded the pines. The nematodes are not the true culprits.

The true culprits causing the death of the pines are the black linear fungi in the soil, and the nematodes and long-horned beetles that have been considered the cause are doing nothing more than clearing away the corpses of the pines. At the very least, they are only accessories to the crime, while the ringleader lies underground.

But even in the case of the black linear fungi, if smoke pollution and acid rain turn out to be

the source of the problem, then we will have no idea who the real culprit is. Of course, this research was done in my crude hut in the hills, so there may be some mistakes, but what the world sees as cause and effect is clearly deceptive. Although I speak of the cycle of cause and effect, no one knows what is really happening.

For some years the pine blight has appeared to hold in abeyance in western Japan (Kansai), but it has spread in eastern Japan and the areas facing the Japan Sea, and it is possible that large pines will die out completely. (The older the trees, the more easily they die abruptly.) Pines are hardy plants, but they are susceptible to pollution. I hope this is not a sign of the coming desertification of Japan.

In any case, if we mistake cause and effect, the origin and the result will be reversed, and the measures for dealing with them will lead to grave errors.

The Pinwheel of Causality (The Windmill of Causality)

Causality is a whirling pinwheel. We can look at it as a windmill turning round and round, with cause and result set as alternate blades.

As in the composition of a poem, which includes the successive stages of introduction, development, and conclusion, causes arise and effects are born. The effect becomes a cause, then a new effect is born, then that effect exerts an influence and becomes the next cause. Therefore, there are various causes, with names such as fundamental cause, primary cause, immediate cause, remote cause, and proximate cause, and they are continuously spinning round.

The windmill of causality spins to the right or to the left, depending on the direction of the wind. If it reverses according to time and place, then the result becomes the opposite of what it was before.

Scientists believe that once they have assured themselves of the true cause, they will always be able to work out basic countermeasures. But although they make great efforts, they cannot

ascertain the first, true cause. That is because only the blades of the windmill of causality can be seen with man's micro-vision. No matter how much you investigate the outer appearance of the blades of cause and effect that spin round and round, there is no way to grasp the constantly changing chain of cause and effect. There is no way to ascertain whether something pulled, pushed, or was pushed, whether the apple fell on its own or was dropped by the heavens.

This does not mean, however, that the true cause does not exist. The absolute true cause is in the center of the windmill. The central point becomes the unmoving, absolute true center. If we start from this true center, then at once we will understand all things completely.

This central point cannot be grasped by a scientific, inductive method. Even if you try to grasp all things and phenomena by scientific induction, by observing the external, you will be obstructed by the wings of the spinning windmill of causality and will not be able to plunge into the center. Because you cannot inspect the interior, you will not be able to come in touch with the center. The only possible way is by an intuitive, deductive method. It might appear that we can understand the fundamental true cause that is at the heart of things rationally or through the senses, but unfortunately the deductive method hardly goes beyond the relative situation of the inductive method. For this reason, even when it appears that we have tentatively grasped the true cause and a tentative conclusion has been reached, as our relative thought regarding the central point deepens, the one point becomes two points, then three points, and continues developing vertically to form shaft of the windmill. While in theory there is only one true cause, in fact it becomes numerous true causes. Therefore, while we start at the fundamental cause, and the result or conclusion that is our final goal is obvious, various human contrivances and efforts become necessary, even though the direction and route we must take are a single path straight as a shaft.

Nevertheless, the superficial cause and effect do not become intertwined and confused, as with scientific judgments based on the inductive method. If this world is a riddle, then the riddle cannot be solved by science, but only by relying on a deductive method, in which a clear-cut cause and effect can be grasped.

It goes without saying that the true cause that is obtained by intuitively touching the center

through absolute awareness is the only true cause within a true mind. It is nothingness and emptiness, can neither be spoken of nor named, but it is absolute truth and can attain its goals and conclusions by itself in do-nothing nature.

This theory is quite applicable in the case of practicing natural farming. The conclusion that I could grow rice without doing anything was not mistaken, and I could in fact grow rice, but nature is not the same year after year, so in order to conform with nature, close attention and various adaptations have been necessary.

PART 2: SCIENTIFIC MEASURES AGAINST DESERTIFICATION; A CRITICISM

A. The Illusion of the Law of Causality

Natural scientists have found that if you chill a cup of water, it will turn to ice, and if you heat the ice, it will turn into the original water. In the repetition of such experiments, they have seen that there is a cause and a result in every change of matter.

When sea water is heated by the sun, it evaporates as water vapor, rises in the sky to form clouds, turns to rain, falls on the earth, flows down the rivers, and returns to the sea. With this, meteorologists learn the cause of rain and clouds and think they have grasped the true nature of the water that is the result, but they do not understand the first, fundamental cause that explains why there is water on the earth and why the clouds float in the sky. Man does not understand the ways of Heaven. No matter how much he investigates the history of the birth of the earth, when he asks when and how water was formed from oxygen and hydrogen, he finds that the atoms of these were formed of subatomic particles. The cause includes a primary cause and a remote cause, and there is no possibility of meeting with the first cause.

Man does not know who or what created the universe and life. We can only say that God created them. Whether one loves or is loved, pulls or is pulled, we cannot know the true cause.

If we do not know the first, fundamental cause, the will of God, then everything that appears to

be a cause is only a result. The law of causality that comes into existence microscopically does not exist when we look macroscopically. If cause and effect are reversed, human knowledge and action come to nothing. Fundamental measures become, conversely, insignificant, or else become results that magnify the origins of calamity.

When natural scientists set up measures to counter desertification, they begin by investigating its causes and surveying the existing state of the results. After they have conducted studies of the desert environment, climate, soil, and the ecology of the organisms, they proceed to thinking about means for reforestation. In other words, they first devise a swift, localized treatment of the symptoms. Usually they go on just amassing more and more localized measures. But the causes are not the true causes.

B. The Existing State of Desertification Countermeasures

For example, (a) when people see that rain does not fall and there is no water in the desert, the first thing they think of is to build a dam to store river water, and then they build waterways and irrigation canals. They think that, in order to use water efficiently, it is best to make straight waterways, so that the water will flow faster.

Plans are now being put into effect on rivers in various parts of Africa, starting with the Aswan Dam in Egypt, the Yellow River in China, and the Narmada River in India. These may serve as short-term measures, like Western medicine, but they not only will not become fundamental measures, they will turn into mistaken, long-range 100-year policies.

To put it bluntly, we must first realize that the most important, fundamental cause of water disappearing from the rivers is that rain has stopped falling, and the first step we must take in countering desertification is to get rid of the problem by causing rain to fall.

To try to revegetate the deserts around the rivers by using the scarce water remaining in the rivers is putting the cart before the horse. We must revegetate waste stretches of desert at a stroke,

thereby causing rain clouds to rise from the earth. Causing rain to fall is the necessary first step.

There is now a plan to construct 200 dams along the course of the Narmada River the second largest river in India after the Ganges, but when the dammed waters rise, directly destroying the livelihoods of 300,000 people and submerging the forests along the river, millions of people will be driven into the deserts in the areas around the river. If the forests disappear, the desert will grow even larger.

The Indian government is now faced with the decision of whether to pursue a hundred-year national policy of building hydroelectric power plants in the dams and to revitalize the country in that manner or to revegetate the desert and bring the earth back to life. The Japanese government will provide financial aid for dam building, and Japanese companies will carry out their construction.

(b) Even if there are no rivers on the surface of the desert, there is water hundreds of meters below the surface. There are plans to build underground dams in Niger and other places in the Sahara Desert of Africa. There are precedents for this in Saudi Arabia and in the desert area east of the Rocky Mountains of North America. Water is pumped up from a vein a thousand meters below the earth's surface to pivot farms, where it is dispersed by enormous sprinklers that form circles a kilometer in diameter. When we see the green circles these farms make in the desert, we are given notice of the power of modern science, but what will happen when they have completely pumped up the underground water that has been filtering down from the forests of the Rockies (which are now disappearing) and collecting for 3,000 years? Even if that were not to happen, pivot farms become salinized and worn out in about five years. People then build retirement homes on these desolate sites and advertise them as Utopias (according to the NHK program), but can we call such places oases in the desert?

Growing crops in the desert by irrigation methods that use pumps powered by electricity or petroleum appears to produce an immediate effect, but it only turns the surface of the earth into salt fields. Because the salt underground is brought to the surface and becomes concentrated in the irrigation water, the period of time during which crops can be grown is much shorter than would

be expected. I was especially impressed by one example of this sort of failure in Somalia, where I traveled around looking at large modern farms built with the aid of five other countries.

(c) When water is scarce, then people think about economizing water. Plastic pipes are laid in the desert in an effort to use the least water to the greatest effect through the drip irrigation method. A Japanese university has been carrying out this sort of irrigation in Mexico. Of course, this method is effective as a localized remedy, but looked at in terms of the materials and energy used, it is questionable whether or not drip irrigation can be adopted as a permanent measure.

A recent topic of interest in connection with deserts is the practical experiment being carried out in Egypt using super-absorbent resin for revegetating the desert. Super-absorbent resin, which is used in disposable diapers, is plowed into the sand to increase its ability to retain water. With the same goal in mind, development companies have begun doing research on various types of water-retaining materials to use in place of humus. The government has begun cooperating in the effort to halt the expansion of China's great Taklamakan Desert. As in Sudan and Tanzania, they are using satellites and airplanes to do remote surveys of the current state of desertification; analyzing underground water, the salinity in the earth, and soil conditions through boring; making computer simulations of the configuration of desertification; and testing the tolerance of plants raised in the harsh desert environment. Until now all plans for revegetation through reforestation and other methods have ended in failure, so they say they are starting with the collection of fundamental data.

Even if you try to force reforestation in a place without water, you can develop excellent fields if you pump water from underground and sprinkle it on the desert. Saudi Arabia and American pivot farms are examples of this, but because the water that has been sprinkled in this way soon evaporates, the salt that was in solution in the underground water is precipitated out, and as the salt builds up in the soil, the land in time becomes unusable. Furthermore, if we extract the salt from the underground water and the irrigation water, in order to prevent this salinisation, the salt level of the rivers or land where this waste water is disposed of will increase, and if the adverse effect expands even further, we can anticipate that the accumulation of salt will intensify with the

water-retentive capabilities of disposable diapers. Methods such as those used in Saudi Arabia and Israel, of filtering sea water with a synthetic resin membrane, removing the salt to turn the sea water into fresh water, circulating it, and thus making farms in the middle of the desert, are ignoring the way of Heaven and are nothing more than beating around the bush.

(d) When the desert soil is poor, they start with research on sand, clay, and gravel and begin erosion control and soil improvement, but when they believe in the usefulness of the science of soil fertilizers, the things that they must do increase infinitely.

For the past fifty years or so I have grown crops without tilling the soil and without using fertilizers or agricultural chemicals. Without doing anything, the soil in my fields has become the best in my village. The best method for improving the soil in the desert is to know nothing and do nothing.

Wading scientifically into questions such as "What is soil?" is literally wading into a swamp from which you cannot crawl out.

(e) Some people think that, to increase the vegetation on earth, it is best to plant trees that mature quickly, and thus various types of eucalyptus and other trees, which also provide firewood, are now being planted in great numbers around the world.

When reforesting the deserts of Africa, India, and Thailand, a strenuous effort may be made to water the trees daily, but when they are watered incompetently, the soil is firmly compacted by the water, the water cannot filter into the ground, roots cannot extend, and in the end you might as well have poured water on heated rocks, for many of the trees wither and die.

In countries where cows and goats are more numerous than people, even if plants are protected by brick enclosures or barbed wire, they are eaten by domestic animals and do not prosper. Desertification caused by cows and goats is a serious problem, and it appears that we must first decide how to control the number of domestic animals, before dealing with the problem of the world's human population.

When they see that the food supply is insufficient, people hurry to cut down trees and try to grow crops as quickly as possible in burnt-over fields. At any rate, the world is now caught in a

cycle of three evils - cutting trees, burning, and eating meal. Vegetation is decreasing faster than increasing, and desertification is proceeding at an accelerating rate. spreading throughout the world like a metastasizing cancer.

In short, scientific measures consider water to be first, or soil, or plants. The actuality, however, is that without our ever knowing whether the chicken or the egg came first, the various scattered efforts to halt desertification end up as halfway measures administered by government officials.

The tragedy is that the water, soil, and plants needed in the desert are considered separately, and each is being advanced by separate measures. As a result, the comprehensive determination of the causal relationship among them, seen from a macro point of view, and the pursuit of the true cause are being postponed.

PART 3 THE ROAD TO THE REVEGETATION OF THE DESERT

A. Vegetation in the Desert Today

On account of the mistaken agricultural methods of the last 2.000 years, the surface of the ground in Europe and the U.S. appears, for the time being at least, to be covered with a lovely green, but I noticed that it is an imitation green with neither butterflies nor dragonflies. One meter beneath the surface it is in fact a dry semi-desert. If nature atrophies, then civilization also stagnates.

It is said that only three percent of Africa is covered by vegetation today, while eighty percent was covered by deep forests eighty years ago. According to the Statistical Research Bureau in India, the vegetation in that country has disappeared rapidly in the past forty-five years and now covers less than ten percent of the land. When I went to Nepal, top-ranking officials lamented the fact that in the last twenty years the Himalayas have become bald. treeless mountains.

In the Philippines, on the islands of Cebu and Mindanao, there are banana plantations but no

forests, and there is concern that in five years even drinking water may be in short supply. In Thailand, Malaysia, and Indonesia, as farming methods that protected nature have been swallowed up by the wave of modern civilization and have deteriorated, the destruction of nature has begun. It appears to me that if the deforestation of the tropical rain forests of Asia and Brazil continue at the present rate and vegetation is reduced by three percent, oxygen will soon become scarce on earth and the joy of springtime will be replaced by the sadness of an autumn with too little oxygen.

Of course, the immediate cause of the loss of vegetation over the past forty to fifty years has been the indiscriminate deforestation carried out in order to support the civilization of the developed countries, but the remote cause stretches back thousands of years to the age of primitive man.

In my opinion, primitive people long ago ignored the admonition of God and, in the jungle called the Garden of Eden, began to use their human knowledge to grow sweet fruits to eat. They began to cut down trees to make fine houses, and turned the earth, which was heaven, into a desert. These primitive people then fled and congregated in the profane world in which we live. As atonement for the sins of primitive man, people today must sow seeds in the desert.

At any rate, the natural world did not become a desert naturally. Both at present and in the past, mankind and his knowledge have been the ringleaders in turning the earth and the human heart into deserts. If that is the case, then if we eliminate man's knowledge and actions, nature will naturally come to life again.

My measures for countering desertification are exactly the same as the natural farming method of no action, no measures, and no struggle. Revegetating the desert also is a natural farming method, and carrying out an agricultural revolution also is the same thing, so our goal is to carry out both at the same time and to turn the earth into a paradise.

The purpose of this book is to bring about a simultaneous revolution among God, nature, and man, the three becoming one. It is the starting-point and the destination of a revolution in human consciousness.

B. The Desertification of Europe and the United States

I first saw the desert and began to have an interest in it ten years ago, the summer I flew to North America. I went expecting the American continent to be a waste, fertile green plain, but to my amazement, it was a brown, desolate semi-desert.

I first became directly involved in the revegetation of the desert when I was invited to visit by the director of the Desertification Prevention Council of the United Nations in New York and was asked, "Isn't your book, *The One-Straw Revolution*, a book about the prevention of desertification?" To my bewilderment I, who had never seen a desert until then, was asked to go to Iran and Iraq to develop a plan for desertification prevention, but I realized later why I had been invited. It seemed that my hunch, when I had said in San Francisco, "The natural environment in the United States is all messed up. Rain doesn't fall from above, it falls from below," had been heard. When I was invited to talk with the director of the California State Environmental Agency in Sacramento and was shown materials indicating that Japan and California were at the same latitude, that both the vegetation and the mother rock in the two places were similar, and that long ago the Asian and American continents were one, I felt I understood why only the climate had changed so drastically.

It was my conjecture that the desertification and climate change in California had started from mistaken farming methods.

I was told, "Come along to a place nearby," and put into a car. The "place nearby" turned out to be a plateau area five hundred kilometers away. On a plain of brown grass about twenty young people from several countries were somehow managing to live. They asked me to teach them natural farming as a way of making their livelihood. They didn't even have proper sickles or hoes. The entire area was covered with dry grass, with not a spot of green in sight. There were only a few oak trees here and there. In the midst of such hopeless circumstances, I was unable to sleep,

and early in the morning, as I was washing my face at a small spring. I suddenly noticed that water soaking a mouse's nest had caused some weed seeds to sprout and grow two to three centimeters tall.

I had thought that the grass in California died because the summers are hot, but I realized that in fact, weeds such as foxtail and cheat that ripen in summer simply took over the plains of California, chasing out other green plants. They say that the foxtail entered the country 200 years ago from Spain. Thinking that the green plants ought to come back if we got rid of that weed, I immediately set about doing an experiment.

After broadcasting the seeds of various Japanese vegetables amid the dried grass and moving it down with a large sickle, I tried bringing standing water from the top of the hill by plastic pipe and sprinkled it using an improvised sprinkler. I thought the few days until the water was used up would tell the tale, but "Fear is often greater than the danger," and green began to grow in the plain of brown grass. Of course, it was the green of foxtail. As I expected, when the water disappeared one week later, the grass that had sprung up began to wither in the heat, but in its midst Japanese pumpkin, cucumbers, tomatoes, okra, *daikon*, and corn began to flourish. The result was that the center of the plain of brown grass turned into a vegetable garden. The experiment had yielded an interesting result. The stubborn grass had just sprouted and then withered, and in its place, vegetables had grown up.

We should revegetate California. We should wake up the seeds of weeds that are lying dormant during summer by giving them water or time and nitrogen. I entrusted the young people with my dream, that if possible they would get the state government to broadcast seeds from the air, and then I left the mountain.

I tip my hat to the director of the Desertification Prevention Council for his insight that my natural farming methods could be useful in preventing desertification, but looking back on it now, I realize that the roughly fifty years I spent making a natural farm were in themselves measures against desertification.

People have been living on the site of my natural farm since the Stone Age, and in ancient

times the area was covered with a primitive forest of eight varieties of metasequoia. It is said to have been a center of local culture from 1,000 to 800 years ago, and it resembles the Silk Road in the way that culture flourished and the earth died. Now the soil is a distinctive red clay that becomes hard when it dries, a thin desert soil that plants cannot grow in. About fifty years ago, in this place that would support only sweet potatoes, many people began planting mandarin oranges. They failed and abandoned this land that I have turned into a natural farm.

At first I thought the soil would improve quickly if I brought ferns and mixed trees I had cut in a distant place and buried them, but the experiment was a complete failure. Organic farming will partially improve the soil, but it requires much labor for little result, and I realized that when you look at it from a macro perspective, it is an agricultural method that results in a loss and is one branch of the scientific agriculture that is linked to the destruction of the globe.

The start of my do-nothing farming method came when I decided to plant a haphazard mixture of fruit trees, vegetables, and grains among the acacia trees growing on the hillside and then see what survived. Of course, I neither cleared the land nor tilled it, and I used no fertilizers, herbicides, or pesticides. And now, some forty-five years later, it has suddenly turned into a fruit tree jungle. Without realizing it, I was literally proving that desert land could become a paradise.

Of course, the fundamental idea behind the natural farming method is the *dharma* (natural law) of do-nothing nature.

I was shown around Europe by a young Greek man and a young Italian woman who had stayed in my hillside hut. At present the European countries are, for the most part, very careful about protecting the natural environment and maintaining the lovely vegetation, so that the entire area looks like a natural park, but it's the beauty of a picture postcard, and if you look closely, you find that there are few varieties of trees. Therefore the soil is thin, hard, and unfertile. It appeared to me that the earth had been ruined by an agriculture made up only of pastures for producing meat for the royalty and vineyards for producing wine for church use. Generally speaking, the farther south you go from the Netherlands, up the Rhine, and approach Italy, the number of trees decreases and the green color fades. In addition, the Alps are composed of limestone and have few

large trees. The farther south you go, the higher the soil temperature is, so the soil is increasingly less fertile. My conclusion was that, in Europe, one meter below the surface, the soil is a semi-desert.

"Culture," in its original sense of "to till the soil with a plow," was the beginning of European civilization, but when tractors were invented, causing the earth to lose its fertility, the decline of civilization began. I saw that in Europe.

Along with learning from my observations in Europe and the U.S. how the errors of modern agricultural methods were damaging the earth, I further strengthened my conviction that natural farming methods are the only ones for saving the earth. In order to prove this, I set my sights on Africa.

At that time, however, I could not find an agricultural expert in Africa to *show* me around. I was told by the Japan International Cooperation Agency that someone would go the next year, if I took the initiative, but no one went,

C. The Tragedy of Africa

At last I heard of a plan by a number of people in a private organization to promote modern agricultural methods in Somalia, so I flew to Africa to see if I couldn't accompany them and test my method for revegetating the desert. My first surprise came as I flew over Somalia and saw the large Juba River, the waters of which flow through the semi-desert year-round. The source of this river lies in the distant mountains of Ethiopia.

As this river nears the Indian Ocean, it sometimes disappears beneath the sand, but the fact that there had once been numerous such invisible rivers in Africa can be understood from the fact that in the midst of this semi-desert called "the land of thorn trees," you can always see in one glance, from the air, one or two oasis-like pools of water.

Also, when you are traveling overland, you sometime suddenly come upon large trees of unknown varieties. It is thought that several hundred years ago the large trees formed a dense

jungle. Naturally, I tried to find out why the forest suddenly disappeared.

To put together the accounts given me by an Ethiopian chief and some Somalian farmers, the worst cause of the problem was the colonial agricultural policies administered by the Westerners. In other words, the entire cause of the problem lay in the promotion and cultivation of only commercial cash crops, carried out in the name of enriching the nation. Crops were limited to coffee, tea, sugar cane, cotton, tobacco, peanuts, and corn. while production of other crops for private use was forbidden.

When I went to apply for a visa from the Somalian government, I was astonished when they told me, "Any kind of instruction that agitates the farmers and encourages them to become self-supporting is not welcome. If such activity goes too far. it will be considered insurrection."

Now, after 200 years of colonial rule, the seeds of crops necessary for self-sufficiency are disappearing from Africa. If the seeds disappear, and the farmers whose independence has been snapped in the bud do as they are ordered by their rulers, growing simple crops and descending to the level of simple laborers, then they will have already lost hope of standing on their own feet again and any possibility of agriculture that benefits nature will be cut off. Consequently the land will become eroded, salinified, and devastated, and will turn into a desert. The soil cannot support the cultivation of coffee and sugar cane. The first cause of the African desert is errors in farming, and the second is mistaken policies regarding the nomadic people.

In the past a majority of the African people were nomadic. From about 2.300 years ago they lived by roaming freely about the hills and plains with their camels and goats. Under colonial rule, however, this way of life came to be forbidden.

Originally in Africa there were various tribes, but no nation states. As the Westerners conquered them and drew arbitrary boundary lines to form countries. they also created huge national parks, in the name of preserving the natural environment and animals, and the people were forbidden to enter them freely.

This was a deathblow to the nomadic peoples. They became unable to graze their animals freely. While on the surface it may appear to have been free, their grazing was bound by strict

rules, but it became impossible.

The nomads, along with their domestic animals, would live in a green valley for a set time, three months, for example. When the grass that fed the animals grew scarce, the people would move to another area. That would be before the vegetation had lost the ability to recover. No one would be allowed to enter such areas for six months or a year. When the natural grass had recovered and grown luxuriant again, members of another tribe would move in and start living there. This sort of practice was an unspoken law that was strictly obeyed.

One person told me that this sort of thing would not have happened if they had abided by the laws of the Koran. It seems the Koran was a sort of bible for the protection of nature.

But once national boundaries had been drawn and parks created, the nomadic peoples had to travel ridiculous distances to go around (hem and, because of the inconvenience, began to live in one fixed area for a long time. Naturally, when this happened, fodder grew scarce, the wood used for fuel was all cut down, and water was exhausted. People and domestic animals began struggling with each other. When food, clothing, and shelter were restricted, conflicts occurred. This tragedy also was used by those yielding political power.

A teacher who was a participant in South Africa's anti-apartheid movement came to my hillside hut and asked to be taught the methods of natural farming. Just then I was harvesting rice with a sickle. He said he wanted to learn how to use a sickle. It seems that most of the people in South Africa do not know how to sow seeds or to take care of plants once they have sprouted. He was having greater success teaching people that they could achieve independence by starting a natural farm than he had spreading the message of the independence movement.

The Africans may appear at present to be enduring extreme poverty, but they are a very proud people and even say that they do not want to fall so low as to want to own land.

Perhaps the nomadic people who rambled freely and at will over the hills and plains of Africa lived the same sort of life as the Zen monks who wandered as freely as the clouds.

When I saw the reverent form of a Somalian youth praying toward Mecca in the brilliant red sunset, I felt I was seeing the eternal Africa.

D. Sowing Seeds in an African Refugee Camp

I was told that to give seeds to the nomads was the same as telling them to become farmers, who are a class lower than them. A young Japanese man had told me that it would be dangerous, because they would feel insulted, but I ignored his words. I went into a settlement of Ethiopian refugees and began handing out seeds.

Only the children approached me, because I was a strange sight. When I gave them a handful of seeds, they would clutch them so hard their nails left prints on their hands. "What is this? Is it food?" they asked. When I told them not to eat the seeds, but to plant them in the sand and water them for three days, they would shrug their shoulders and say, "We can't understand your strange English." They couldn't understand the words of a Japanese. But, after four or five days about twenty or thirty children came and asked me to follow them. When I went, I found that each child had made a circular patch in the sand one to two meters across and that a throng of cucumber, squash, bean, tomato, eggplant, and *daikon* sprouts had appeared. Three youths started beating on a broken bucket and singing. My heart was warmed by this sight. After that, even women and the elderly joined in sowing seeds in the desert.

The speed of plant growth there is truly amazing. Everything, including Japanese fruit, flourishes. In particular, oranges, grapes, and pomegranates will grow two or three times as fast. A papaya will bear about ten fruits in four to six months, while bananas will set fruit in one year. The bananas will ripen in a year and a half.

The thought behind modern agriculture in the desert is that if you just have water, you can do anything. Every day they pump water up from the rivers, run it into irrigation ditches, and water the fields in succession. Because the ground is sand, the water will not stand on the surface. But if this method is followed, the fields will salinize, and if the practice is continued for five years, the salt will accumulate and crops will no longer grow. The large modern farms sponsored by foreign aid all follow this practice. Just as I had expected, all the modern farms I saw had failed. After a

few years they had all turned to salt fields and had been abandoned.

I advised people to use as little water as possible in (he desert. I also encouraged them to plant acacia trees with a mixture of vegetables and grains such as Deccan grass and millet. Of course, I advised them to retain some poisonous plants that goats will not eat, and in particular to plant more trees that are effective in bringing up underground water. Between the trees, they should sow grains such as *Shikoku-bie* and vegetables.

I also tried planting Ryukyu bamboo, reeds, and willows on the sand-erosion barriers along the riversides, and the bamboo seemed like a good possibility. Sugar cane also would be good. In addition, I made a raft of firewood and put unhulled rice and vegetable seeds in it, to see if something could be grown there. I was not there long enough to see if it succeeded, but I concluded that with a sturdy enough raft it was a possibility. I *was* even more surprised at the way small fish burrowed among the sticks of the raft to eat the roots of the sprouted vegetable seeds. Clearly, there was a considerable number offish in the large river.

Although the tribes people are suffering from malnutrition, they are not accustomed to eating fish because of a religious belief that, if you eat a fish or a snake, you will become one in the future. But in the end the youths gladly ate the small dried fish I had brought with me from Japan and said they were delicious.

Improving the diet of the Africans is a problem from the start. No one realizes there are many fish in the river, and they do not eat them. Neither are they interested in Japanese or other foods.

A chieftain explained the situation to me at length. "Rain has stopped falling in Africa, and so we can't do anything. The earth has died," he lamented.

I answered, "We can say that earth that has been polluted by Western chemical fertilizers, pesticides, and herbicides has died, but the soil of Africa is just too immature. The red clay earth is only sleeping. If the people will open their eyes and work in such a manner as to wake the sleeping soil, then it will certainly wake up. and you will be able to grow anything."

"What do we do to wake it up? Tell me scientifically."

"The problem is not that there are none of the nutrients plants need, such as nitrogen,

phosphoric acid, and potassium, in the clay and sand of the desert. They have been absorbed by the clay and are not soluble in water, so it's just that plants are not able to absorb them, and they don't thrive. So what you need are scissors for cutting apart the clay and the nutrients."

He laughed and said, "The only one with such bandy scissors is a crab." "The microorganisms in the soil will do the work for you, without your having to work hard. You don't even need to know about microorganisms. When you sow the seeds of crops and trees, just be sure to mix the seeds of legumes such as Egyptian clover and Lucerne with them. The more partners there are, the better." When I explained it this way, he understood quickly.

In the desert, high temperatures from radiant heat are of greater concern than water. However, this too will change completely if the surface of the earth is covered with vegetation. Depending on the state of the vegetation, we can control the temperature to some degree.

PART 4: REVEGETATING THE EARTH BY NATURAL METHODS

A. Revegetating the Earth Through Intuitive, Deductive Methods

My journeys have been inspired by my dream of revegetating the desert, but unlike the typical scientist, I have not tried to amass data and experiences or systematically formulate measures for preventing desertification. Intuitively, I first proposed the conclusion of my desert prevention measures. At all times they are based on deductive methods. In other words, I started with the conclusion that, since both now and in the past, the causes of the continuing desertification of the earth have been human knowledge and action, if we eliminate them, then nature will naturally come to life again. In a broad sense, the desert itself implies the revegetation of the earth, including even a revolution in agriculture. My journey to the desert was satisfactory even if all I came to understand was how foolish and micro-level human knowledge is. You could say it was a journey for the purpose of abandoning human knowledge.

There is nothing to investigate or research. Without our doing anything, nature will be restored to its original state. Unfortunately, however, there is devastation everywhere, so even if nature tries to recover itself, there are places lacking even the seeds that form the basis for recovery. The only work for man to do (in service to nature) is to gather microorganisms and the seeds of various plants and sow them in such places. A good example of this is the natural farm of Miss MS, a woman working for the Magsaysay Foundation in the Philippines. She read my book, did research for ten years, and completed the farm in four years. She has truly created a paradise, where beneath an assortment of fruit trees such as banana, papaya, guava, and durian. there is a dense growth of coffee trees and green manure, orchids are blooming in profusion, and fish are swimming in ponds.

In addition to the fact that the Philippine islands are formed of coral and the soil is very poor, as a result of reckless deforestation, you cannot find anything like a tropical rain forest anywhere in the islands.

Why was she able to develop this jungle of fruit trees in so few years? At first even I was doubtful, but the basic principle shakes the foundations of modern agronomy. What was necessary was harmony (love).

If we summarize the elements necessary for plants to grow, then just sunlight, water, and air are sufficient. All the individual elements were made by nature itself. Even without magnificent instruments, nature can perform a great symphony.

If you believe in an intuitive conclusion, the road will open of itself. If you firmly believe that the Philippines were originally a paradise and sow seeds there, nature itself will create a wonderful forest of harmony. I was deeply moved by this classic example. But, we must not be overly optimistic.

B. The World Agricultural Crisis

As a result of the disappearance of forests in the Philippines, Thailand, and India, the

devastation of the mountain plateaus and the flatlands has become pronounced. Generally, it does not seem to be noticed that much, but the destruction of forests is gradually having an effect on paddy agriculture. The vegetation on the treeless plains of Europe and America is scant. The Asian countries where clear-cutting is being carried out are even worse, and we can hardly see the deep green of the jungle any more. Mountains are almost stripped bare, with only a few small trees left behind. The trees in the flatlands have been cut down as land is cleared for fields, and I have become painfully aware of how impoverished the soil is under the surface. The desert is encroaching upon the paddy farming belt. We can still see fertile soil in the rice-growing regions of the Philippines, Thailand, and India. But I am worried about how long the productivity of these regions can continue, given the devastated condition of the surrounding hills and plains. My immediate concern is that unforeseen changes are occurring in the plant ecosystems as a result of the use of fertilizers and agricultural chemicals. There are many instances in which improved varieties of pasture grass have turned into harmful weeds.

Just the fact that weeds resistant to agricultural chemicals will spread makes it inevitable that farmers will lean toward modern agriculture, with its reliance on chemical herbicides.

I cannot avoid making the assertion that at present, not only are mechanization and the heavy use of fertilizer and chemicals bad for farmers, but that they are a fundamental source of the ruin of the land and the farming people of Asia. It is clear that modern farming methods and cattle-raising are destroying the earth.

The most important reason for this is that, while modern agriculture appears to be increasing the production of food crops, in fact it is decreasing productivity. If we convert the materials and labor required to produce rice and barley to energy, and compare that to the energy in the harvested food, we find that a dramatic reversal has occurred in the last fifty years. (Please consult *The Natural Way of Farming*)

For each calorie of energy invested in rice-growing in the United States fifty years ago, the harvested product contained two calories. From about thirty or forty years ago the *two* figures became the same, and at present, the investment of two calories only produces one calorie.

The soil in Japan is very fertile, so for a long time Japanese agriculture maintained harvests of two calories for each calorie of energy invested, but as mechanization advanced and increased harvests became a goal, efficiency decreased sharply. Now the energy produced is only half that invested. In other words, we have "deduction" rather than production.

Today, as in the past, the natural farming method, which uses no production material other than labor, produces and is increasing production. To give an easily understandable example, with the labor of ten to twenty people, you can grow 500 kilograms of rice on ten acres of land with ten days' labor. If one person eats one kilogram of rice per day (1,300 calories), each will have grown about thirty kilograms. If we convert this into wages, it would be approximately ten times as much. If the natural farming method is employed skillfully, on a diet of one kilogram of rice per day, 600 kilograms of rice can be produced with ten days' labor. When looked at in terms of energy production, modern mechanized farming is not increasing production, it is actually reducing production, and the soil is being ruined.

Agricultural experts believe that if people use machines, fertilizers, and agricultural chemicals, they will increase food production, but the actuality is that they are only turning petroleum into food. In the past, the soil was fertile, and by the power of nature, the energy invested more than doubled, an increase in production. Nowadays, however, rather than an increase in production, the more that is produced, the more the earth's resources are being eaten up, resulting in negative production.

An increase in food production, that appears to be an increase when viewed individually or nationally, is a complete failure when seen on a global scale and is turning into a program for reduced production. We are like an octopus congratulating itself for becoming fat by eating its own legs. Herein lies the fundamental reason why farmers cannot make ends meet. High-tech farming methods give the illusion that even if the earth loses its fertility, even if there is no soil, food can surely be produced, but if petroleum becomes even a little scarce, food production will take sharp drop immediately. When we have reached the point at which obtaining one unit of food energy requires three to four times that much resource energy, how will the human race be able to

maintain its food supply?

There is no technology for increased food production that uses more energy than high technology. Everyone must understand now how frightening that is. (Whoever controls petroleum can control the food supply and the world.)

The reason I say that natural farming is the main path in agriculture and that modern high technology is nothing more than peripheral technology is that its production is not production, and not only does it bewitch people with a fake food production, but it also is endangering the future of the earth and the human race.

To increase speed and raise the rate of productivity is the categorical imperative of modern science, but people do not produce anything, nor have they gained time by working busily.

Gandhi taught an eternal way of life that is content with a spinning wheel. If he were here now he probably would engage in passive resistance against modern civilization. Holy men such as Jesus and the Buddha all have known that modern civilization is not worth a single lily. Passive measures have been of the greatest benefit to the earth. Without doing much of anything, we have become good at making bread but poor at making flour, and as its quality worsens, we become poorer. Global starvation is surely drawing nearer, step by step.

It is an illusion to think that, with advancements in agronomy, an increase in food production is possible. The technologies we are developing only make up for the ground lost with the deterioration of the earth and the decline in productivity. In other words, they are technologies for cutting our losses. Looking at them on a global scale, they are not technologies for increasing production but only for cutting our losses. We are simply killing the soil and then thinking we will rescue it. The amount of solar energy pouring down on the earth is always the same, but the amount of energy that people can use is always fixed, and their efforts to increase it are in vain.

C. Cows and Goats Will Destroy the Land, Cultured Fish the Sea

The modern livestock and fish industries also have fundamental defects. Everyone blithely thinks that by increasing the raising of domestic animals and poultry and by cultivating fish, our diets will be enriched, but meat pollutes the earth, and fish the sea.

When we look at calories in production and consumption, if people want to eat eggs and milk, they have twice the trouble than if they ate grains and vegetables, and to eat meat, they have to expend seven times the effort. That is because contemporary cattle-raising is a waste of energy that, from a fundamental viewpoint, cannot be called a production activity. In addition, the ironic result is that the more we try to increase production efficiency by raising improved, larger breeds, production efficiency actually decreases, people work harder, and nature deteriorates.

The energy returned for the amount invested is only 50% for broilers, 20% for pork. 15% for milk, and 8% for beef. Cattle-raising is a labor that reduces the output of energy on the globe by one-tenth, and people who eat meat consume ten times the energy of people who eat rice. In Japan, livestock are fed on corn brought all the way here by ship raised in cages, and waited on hand and foot by people who feed them morning and night and carry away their excrement. Do people realize to what extent they are depleting the soil of the American continent? Not only is this not economical, but it is destroying vegetation on a world scale.

In what I consider the ideal livestock-raising situation, the flowers of clover and vegetables would bloom in profusion beneath an orchard of trees laden with fruit, bees would fly about among the barley that had been sown there, chickens and rabbits that fed themselves on what they found to eat would frolic with the dogs, great numbers of ducks and geese would paddle about in the paddy fields, and at the foot of the hills and in the valleys, pigs and wild boars would fatten themselves on worms and crayfish, while goats would occasionally peek out from among the trees of the mixed woods.

You might say that this scene can be found in the poor villages of some country not yet polluted by civilization, but the real question is whether we see it as uneconomical and primitive or as a superb organic community in which men, animals, and nature have become one. A pleasant living environment for small animals is also a Utopia for human beings.

The area of land necessary for people to live is 200 square meters for a grain diet, 600 square meters for potatoes, 1,500 square meters for milk, 4,000 square meters for pork, and when they receive all their calories from meat, 10,000 square meters. Making a rough estimate, if the entire world population were to become meat eaters, there would be no margin for population increase. In fact, the human race would face starvation, with 30% of the population starving if the diet were pork. On a potato diet, the population could double, but on a rice diet, the population could increase by five or six times without difficulty.

If you just look at Africa, Australia, North America, India, Nepal, and the Middle East, you will see obvious evidence of the fact that the land is being ruined by intense cattle grazing and that vegetation is disappearing from the earth.

We can say the same about the modern fishing industry. This industry is destroying the mangrove forests along the Asian coastline, polluting the seas that have been abundant fishing grounds and turning them into seas of death, using ten kilograms of small fish as food to raise one kilogram of high-class seafood such as yellowtail and shrimp, and then congratulating itself on how abundant fish have become. Rather than developing better ways of catching fish, we ought to protect the seas by catching fish by hand. Fish will not become more abundant if we do research on technologies for cultivating shrimp, sea bream, and eel. Not only is this kind of thinking and activity the fundamental source of the failure of the modern fishing industry, but it is also causing the death of the seas themselves.

The road to enriching man's diet lies in turning our backs on human knowledge and personal desires and can easily be achieved through an abundance of natural vegetation and wild birds and animals. There is no other way.

PART 5: THE REVEGETATION OF THE DESERT BY NATURAL METHODS

A. Desert Revegetation According to the Theory of Non-causality

When we take a position of what I call "non-causality" (transcending the world of relativity), there is no question of whether the egg or the chicken came first. The egg and the chicken are one, beginning and ending at the same time, with nothing before or after them. Natural measures for the prevention of desertification are based on deductive reasoning, so when they begin, the conclusion has already appeared. There are no deviations on this path.

By not looking at the desert soil, water, and plants as separate elements, as I scientists do. from the beginning we have had the key for lumping all the elements ! together and resolving them at the same time philosophically.

It is common sense to say that such a key does not exist, but it is not impossible. If we try to throw ourselves into the heart of things with do-nothing, detached minds, therein we will be able to grasp the true cause of causes (the key, the windmill of causality) that embraces all questions.

If we are not tossed about by the superficial causality perceived by man's micro-vision and grasp the true cause with God's macro-vision, then we will be able to resolve all things at once.

The no-knowledge, no-action, no-means methods of natural farming can be applied just as they are to revegetating the desert. In other words. if we abandon man's discriminative, relative knowledge and follow the laws of nature, then everything, natural farming and desert revegetation. will be resolved at the same time. To abandon human knowledge and leave everything to nature is to imitate the *dharma*. (natural law). It has already been proven by the natural farming method that, if we do so, nature will resurrect itself naturally.

We should consider the present to be a second genesis and breath life into the dead soil, water, and plants of the desert. Of course, the life of nature is not limited solely to biological life. This life, in a broad sense, is the mind of God that is lodged in every thing and every phenomenon. But unfortunately, we can grasp only biological life with our limited human knowledge and action. In compensation for this, I will, of course, sow in the desert the seeds of as many different plants as possible, and if time would allow, of all living things.

In other words, without questioning whether they were good or bad, I would mix together sow

the seeds of a wide range of plants — forest trees, fruit trees, vegetables, green manure — as well as ferns, moss, and lichens. Moreover, I would even include soil microorganisms, fungi, and bacteria. If it were possible, I would like to scatter black jungle soil. Fertile soil is a treasure house of various kinds of seeds and microorganisms, and in extreme deserts is the most economical means.

Of course, it would be good to mix, among the many kinds of plants, ancient plants that grew before desertification (California, India), heat resistant plants (Africa, Thailand), and salt resistant plants (Somalia).

In principle, not only useful plants from around the world should be added. There are also many harmful and poisonous plants that, from a broad perspective, are necessary to prevent desertification. Temporarily we must guard against cows, goats, birds, and mice.

I cover these seeds and microorganisms in clay and sow the seeds in clay pellets. These pellets protect the seeds and maintain the water necessary for germination, but scientifically speaking, the techniques of tilling, fertilizing, and spreading herbicides and pesticides, the minimal necessary conditions for growing crops, are locked inside these small clay pellets.

To summarize the details, there are seeds and microorganisms in the clay, and in order to make the pellets hard, we use lime, bittern, glue, and sometimes synthetic resins. To make them resistant to insects I mix in herbs such as derris, Japanese star anise, Japanese andromeda, lacquer tree, Japanese bead tree. and so on.

Then, I broadcast the seeds in the clay pellets and wait for rain. When there is a squall in the tropics, seeds germinate and grow very quickly. If, even temporarily, a large area becomes green, it protects against radiant heat, and the soil temperature drops. We can say that the first step is a success.

We do this resigned to the fact that if a drought follows the rain, a majority of the plants will die. But if, even though most die, the plants among them that can withstand heat or can thrive without water survive, and in the shade of these plants or of the dry grass trees grow up here and there, then even if we leave the place alone after that, green will summon more green, insects will

come. birds will come, small animals will come, and they will all scatter seeds. If one tree grows, it will act as a pump to bring up underground water, a sprinkler, and a fan. When various kinds of plants, large and small, grow up, their geometric effect will be greater than you imagined. I was able to confirm Ibis in places like Somalia.

B. Aerial Seeding Using Clay Pellets

Making multi-layered clay seed pellets with bittern for use in desert revegetation

Purpose

The clay seed pellet was conceived and development for direct seeding of rice, barley, and vegetables, in conjunction with the no-till method, but it has since come into wide use. Particularly in cases where it has been put to use in savannas in foreign countries, the defects became apparent, improvements were made, and it has developed into an especially suitable method for aerial seeding for the purpose of revegetating large areas of desert at one time.

Materials

(1) Seeds of over 100 varieties (trees, fruit trees, vegetables, grains, useful fungi). Ten percent of combined weight.

(2) Fine powdered clay such as that used for fired bricks or porcelain. In general this should make up five times the weight of the seeds, but the amount of seeds should be taken into consideration. Fifty percent of the combined weight.

(3) Bittern (liquid remaining after removing salt from brine obtained by boiling and concentrating sea water or from natural brackish water (Dead Sea. etc.]). Ten to fifteen percent of combined weight. With synthetic resin or seaweed paste making up five percent of combined weight.

(4) Slaked lime - ten percent of combined weight.

(5) Medicinal herbs: derris (root), powdered fruits and leaves of Japanese star anise, Japanese

andromeda, Japanese lacquer tree, Japanese bead tree. Ten percent of combined weight.

(6) Water - five to ten percent of combined weight.

Aerial Seeding Method (Overseas)

The seeds necessary for revegetation of the desert will be mixed in clay pellets and broadcast from airplanes to revegetate large areas at one stroke.

Method of Production

When producing pellets in large quantities, a typical concrete mixer (with inner blades removed) is useful.

(A) Put fungi and seeds into the mixer and mix well to spread the fungi about.

(B) Next alternately spray the clay powder (containing no non-specific bacteria) and water (in mist state) into the mixer as it is rotating, to create a layer enclosing the seeds and fungi. (Middle layer)

(C) Then, when you alternately spray the bittern, the seaweed paste solution, and clay powder, and the slaked lime into the mixer as it is rotating, a round seed pellet usually 0.5 - 1.0 cm in diameter will form.

Properties

(1) The seeds enclosed in the layers of clay will be able to achieve satisfactory germination and growth with the aid of the useful fungi.

(2) By kneading the clay together with the bittern, seaweed paste, and synthetic sins, its molecules are rearranged, so the pellets become stable, light, and hard. they not only can withstand the fall to earth following aerial seeding, but also just to changes in dampness and dryness related to rainfall, becoming shrunken and solid. Thus. they seldom crumble or break, and the seeds are protected from damage by birds or animals until germination is completed.

(3) Many insects are repelled by the bitterness of the herbs and the bittern mixed into the outer layer, and the seeds can escape being eaten. Even if damage by birds can be prevented by pellets of clay only, on deserts and savannahs it is difficult to prevent damage by mice, goats, and in particular strong insects such as termites and ants. The method described here not only ensures safe

germination of seeds in desert areas without the use of toxic substances, but also makes possible [discriminate broadcasting of seeds over a wide area.

A Method for Producing an All-round Natural Culture Medium

1. Name

Natural culture medium (*matsudake* fungus culture medium) for use with clay pellets.

Application: Fungal microorganisms in general, especially mycorrhizal fungi *matsudake*), eumycetes, actinomycetes, and bacilli. .

2. Ingredients used

The *matsudake* culture medium is made by combining leaf mold and rice bran, and adding to them an infusion derived from boiling a fixed amount of the tubers and/or stems of plants of the Convolvulaceae and/or Dioscoreaceae families, a fixed amount of plants of the Cruciferae family, and a fixed amount of plants of the Liliaceae family.

3. Detailed explanation

Although the pure isolation of the *matsudake* fungus, which is a plant parasite, was achieved long ago, research on the artificial culture of *matsudake*, especially through a pure cultured fungus, has proceeded very slowly. One reason for this is that isolated culture of the hyphae is very difficult to achieve, while another is that the hyphae grow extremely slowly, and it is difficult to obtain a large amount of them. (No other fungus is as difficult to culture as *matsudake*)

The discovery under discussion was made in relation to a *matsudake* fungus culture medium in an attempt to do away with these drawbacks. After experimenting with various media, I was able to obtain a large amount of hyphae quite easily with the natural culture medium. The rate of growth and development of the hyphae in this medium is approximately ten times faster than in the Hamada medium, which has been used most often in the past. Moreover, the medium produced a dense, vigorous growth of the hyphae.

The aforementioned natural culture medium can be produced using the following;

1. Leaf mold from pine forests, mixed woods, etc. (20-50%) (Weight)

2. Rice bran (20-50%)

3. Vegetables

(a) Tubers and stems from members of the Convolvulaceae family such as sweet potatoes and members of the Dioscoreaceae family such as yams (10-20%)

(b) Crucifers such as *daikon* and mustard (10-20%)

(c) Members of the Liliaceae family such as onions and wild rocambole (*Allium nipponicum*) (10-20%)

For example, you can crush and mix ingredients 1 and 2, each in an amount that would make up 20% of the total weight of the *matsudake* fungus culture medium. Then you can add to this mixture an infusion made from boiling material from the three vegetable groups, each making up 20% of the weight. You can either make a liquid medium, with the addition of 60-80% water, or a solid medium, with the inclusion of agar. In order to artificially culture the *matsudake* fungus using this medium, first put the medium in jars or plastic bags and sterilize them with steam. then inoculate them with the spores, and keep them in a hothouse at a constant 16-23 degrees C. After about one month the hyphae will have spread throughout the containers, and if you move them to a hothouse maintained at 19 degrees C or below, fruiting bodies will develop after about four months.

Why is this natural medium effective? The nutritional sources of the *matsudake*, which is a plant parasite, are subtle and complex. Even if we put together various chemical compounds and add vitamins and hormones, we cannot obtain a large quantity of hyphae easily, and it is almost impossible to see the development of fruiting bodies. The natural medium, on the other hand, may appear at first to be a carelessly-made medium, but it exhibits an organic, synergistic effect in which the various elements work in harmony. It appears to enhance the nourishment of the hyphae and the formation of the fruiting bodies. Vegetative propagation of the hyphae is possible to a certain extent just with the leaf mold and rice bran, but it appears that the vitamins and hormones,

especially the growth hormones, contained within the vegetables play a large part in the formation of the fruiting bodies.

The following are uses for which the natural medium is appropriate.

1. Not only artificial cultivation of *matsudake* but also culture of microorganisms in general
2. Planting pines in sterilized soil in which a large quantity of the medium, filled with hyphae, has been mixed and encouraging *matsudake* to grow. In other words, we can create *matsudake* "bonsai."

3. It can be useful for preventing pine blight. To implement this method, the following steps should be taken.

- (a) The soil in which the pines are grown should be adjusted to pH 5.

- (b) Oxydol can be used to disinfect the roots, and in forests a soil disinfectant such as Orthocide can be used.

- (c) The soil should be inoculated with *matsudake* hyphae.

It is clear that by following this method, we can grow healthy pines, avoid damage from long-horned beetles and nematodes, and prevent pine blight.

The medium for culturing *matsudake* that has been described here can also be used to grow other mushrooms. But the flavor and fragrance of artificially-grown mushrooms are much inferior to those of natural mushrooms. The best policy would be to restore the pine forests.

A Natural Farming Project in the Desert

The measures for revegetating the desert are also the measures for natural farming, and the plans for the establishment of a natural farm can be used just as they are in the desert.

The fundamental concept of a natural farm begins with intuitively grasping nature's original form. It's good if the original plants and features of the landscape of the place choose the place spontaneously.

The ideal natural farm is a place where all varieties of plants grow in profusion as a

harmonious whole, and among them all kinds of animals live together joyfully, in mutual benefit. This also can be applied to the desert.

In the desert, there are many places with rivers and underground water. One method is to first revegetate the banks of the rivers and then gradually work to make the interior areas green. If we establish natural forests along the rivers, they will naturally expand. If possible, however, we should scatter every kind of seed over the entire area at once and bring about the revegetating of the desert all at once.

The theoretical basis of revegetation from the riverbanks is the following "plant irrigation" method. It does not rely on running the river water through concrete waterways, as is the usual practice today, but encourages the water to follow greenbelts of plants and tries to achieve non-irrigation agriculture through increasing water retention.

Water naturally moves to lower areas, is carried by the roots of plants, and filters toward dry areas. In the river water, reeds and cattails flourish, while species of *Arundo* will grow in clumps, protecting the banks. Pussy willows, purple willows, and alders will provide protection from the wind and draw water.

Therefore, if we plant every kind of plant, starting from the area around the river, the underground water will filter up the roots of the plants, and gradually a protective forest should take shape. This is what I call "plant irrigation."

For example, if you plant acacia trees twenty meters apart, in five years the trees will reach a height of ten meters, but the roots will have spread ten meters in every direction, water will infiltrate, and along with the increased fertility of the soil and the accumulation of humus, water retention will increase. Although the movement of underground water is extremely slow, gradually it will move from one tree to the next, and they will fill the role of water bearers.

If we apply this principle as a measure for revegetating the desert, we begin by planting woods along the rivers in the desert. Then, at angles to the river, we create belts of natural forest instead of irrigation canals, and have them fill the role of waterways.

In addition, in the center of these greenbelts, we will plant fruit trees and vegetables, create

natural farms, and by creating natural farms that are the same as the natural ecosystem, we will at the same time be attempting to revegetate the desert.

C. Creating a Natural farm (Temperate and Sub-Tropical Zones)

When one wishes to start a farm following natural methods, the first question that must be dealt with is where it will be and how you will choose the place and live on it.

It's fine if, like a mountain man, you go into a mountain forest and live in splendid isolation, but usually it is safest to make a farm at the foot of a mountain. If the area is slightly elevated, then in terms of climate as well, there are many excellent places. There you can easily obtain firewood, vegetables, and the other materials for satisfying the necessities of food, clothing, and shelter. If there is a river nearby, crops will be easier to grow, and you can easily establish your life there.

No matter what the land is like, you can grow crops if you make the effort, but it is best if the place is rich in the bounties of nature. A place where large trees grow densely on the hills, the soil is deep and black or dark brown in color, and clean water can be obtained, and, in addition, one can enjoy natural beauty, is ideal. A good environment and fine scenery are essential elements for living an enjoyable life, both materially and spiritually.

A natural farm must be in a place that can supply all the material necessary to provide food, clothing, and shelter. Therefore, you must start a comprehensive natural farm that includes not only fields but also the surrounding hills and forests. (Please compare with natural farms in the desert.)

Natural Protective Forests

We use the forested hills surrounding the natural farm both directly and indirectly, as natural

protective forests for the farm and as natural sources of organic material.

On a natural farm, the basic measure for carrying out complete, long-term no-fertilizer farming is to build deep, fertile soil. There are various methods for achieving this, including the following.

(1) It is good to bury coarse organic matter deep in the ground, but this requires a great deal of labor, so it is better to plant a forest around the farm.

(2) In the farm, plant trees and grasses with roots that will grow deep into the soil, gradually improving it.

(3) Cause rainwater carrying nutrients from the humus in the forests on the slopes above the farm to flow down and enrich the farm.

The essential thing is to maintain, close at hand, a source of humus, which is the basis of fertility.

You can improve the forests on the slopes above the farm as protective forests. but if there are no forested hills, it is good to make new woods or bamboo thickets as protective forests.

Where the protective forest is concerned, our attention is focused on creating a deep green, natural forest, but we will plant kinds of trees that enrich the soil and will plant a mixture of trees that are highly useful, trees that provide food for birds and animals, and those that protect natural predators.

Raising a Protective Forest

Generally, the soil at the summit of a hill or mountain is thin, and it easily dries out, leaving the hill bare at the top. In places like this, we should first grow trailing plants like *Ixeris debilis* and kudzu to halt the erosion of soil and then sow the seeds of pines and *sawara* cypress, turning it into a pine forest. At first, fast growing grasses such as eulalia and cogon grasses, ferns such as bracken and scrambling fern, and bushes such as bush clover, *Eurya japonica* and cypress will grow densely, but gradually these plants will be replaced, and when *Gleichenia glauca*, kudzu, and miscellaneous trees begin to grow there, the soil will become enriched.

On the side of the hill, it's good to plant evergreens such as *hinoki* cypress and camphor, along with a mixture of other trees such as Chinese nettle tree, zelkova, paulownia, cherry, maple, and eucalyptus. The foot of the hill and the valleys are fertile, so you should plant trees such as walnuts and ginkgo among evergreens such as cryptomeria and oak.

It is also good to use bamboo groves as protective forests. Bamboo grows from shoots in a single year, and its volume of growth is greater than that of the typical tree, so it is quite valuable as a source of coarse organic material when buried in the ground.

Not only are the shoots of *moso* and other bamboos edible, but when dried, the plants are light and easy to carry. Moreover, because bamboo poles are hollow, they decompose slowly when buried and are very effective for holding water and air underground. In other words, bamboo is an extremely effective material for improving the structure of the soil.

Windbreaks

Trees planted as windbreaks not only are useful in preventing wind damage but also are important in maintaining soil fertility and improving the environment.

Varieties that mature rapidly are cryptomeria, *hinoki* cypress, acacia, and camphor, and camellia, parasol fir, arbutus, and star anise, while slow-growing. are among the most commonly planted.

Depending on the place, you may also be able to use trees such as evergreen oak, *Ternstroemia japonica* and *Ilex integra*.

Making an Orchard

It is fine if you take basically the same approach to creating the farm and planting trees as you would in planting trees in the forest. In other words, you cut trees in stages, and nothing — neither the large trunks, branches, nor the leaves — are taken out of the field. We line them up along the

contour lines, leaving them covering the ground, and wait for them to decay naturally.

The basic principle on a natural farm is to create the farm without clearing the land. Generally, land is cleared with a bulldozer. When this is done, the uneven surface of the slopes are flattened, broad roads are made, and mechanized agriculture is made possible. In modern orchards, bulldozer clearing has become the norm.

With mechanization, it becomes easy to apply fertilizer or agricultural chemicals, but other than picking the fruit, this sort of heavy labor is not necessary with the natural farming method. Nor is there any need to clear steep slopes. Moreover, success is actually more likely when, from the time we begin making the farm, we have no money and introduce neither machines nor capital.

The leaves and branches of trees, along with the roots, will decay in several years, becoming a source of organic fertilizer, and will be of use for a long time, as they provide nutrients for the fruit trees until they reach the same size. Furthermore, the organic matter will provide a covering useful in preventing the growth of weeds, will prevent soil loss, will stimulate an increase in microorganisms, and will be useful in improving and enriching the soil.

Just like trees planted in a forest, the fruit trees are best planted in contour lines with the same space between them. If possible, you should dig holes for planting in the shape of octopus traps, add coarse organic matter, and then plant the trees on top of that.

The reason we do not use a bulldozer when creating a natural farm is, of course, because of the nature of the soil and parent rock, but also, if you flatten the land with a bulldozer, you will scrape off the surface soil, which contains a large amount of organic matter that has accumulated for many years. A farm cleared by bulldozer and left untouched for ten years loses surface soil and its economic life is shortened remarkably.

The leaves and branches of the trees that are clear-cut when the land is cleared. Because they will interfere with farming, are usually burned, but this is the same as a burnt-over field, and at a stroke, the fertility is diminished.

Also, the roots of trees that penetrate to a great depth and in a physical sense make the soil

difficult to work, become a source of nutrients within the soil and serve to carry out chelation, or making undissolved nutrients in the soil soluble. Consequently, if you clear land with a bulldozer, dig up the organic matter in the soil such as roots, and dispose of it, the natural conditions will undergo a violent change. Even if, after the farm is made, you dig up the surface of the soil and bury the same amount of coarse organic matter, you will have dealt the soil a blow from which it can hardly recover.

We can safely say that with 30 cm of topsoil there are enough nutrients within the soil to sustain an orchard for ten years without fertilizer, and if you have one meter of rich earth, for approximately thirty years. If we can retain the rich soil of the natural forest, as it is, then no-fertilizer cultivation is possible.

Also, it is easy to think that, if we plant trees without clearing the land, their growth will be poor, but in fact, they are not only not inferior, but it appears that there is a tendency for the trees to live longer.

Making Fields

Usually a "field" means a place devoted to growing field crops, but using the space between the fruit trees in an orchard and growing vegetables and other special crops like grass beneath the trees is also a natural form. There is no reason why an orchard cannot also be a field for vegetables and grain.

Of course, if we are pressed to say, the system and methods of cultivation differ greatly depending on whether the orchard or field cultivation is predominant.

Making a field where fruit trees are the primary crop and grains and vegetables are grown between the trees is almost the same as making an orchard, and it is not necessary to clear the land. There is no need to carefully prepare the ground or bury coarse organic matter.

In the first stage of making the field, we must pay attention to preventing weed growth and bringing the soil to maturity, so it is good to sow the crops among green manure plants,

buckwheat during the first summer and rape and mustard during the first winter. In the next year it is good to plant strong twining plants that reproduce well without fertilizer, such as adzuki and cowpea in summer and hairy vetch in winter. However, they have the disadvantage of covering up young fruit tree seedlings. As the field matures, you can grow a variety of other crops.

Making an Exclusive Field

It is common to make fields on hilly areas at the foot of mountains or on plains, but most field crops are annuals, and many are produced in a few months to half a year. The many vegetables that reach about one meter in height also have shallow roots. Because the time between sowing and harvest is short and several crops can be grown in one year, the surface of the ground is exposed to sunlight for much of the year. Therefore, we must accept the premise that there is much soil loss from exclusive fields on account of rain and that the soil easily loses its fertility and is weak during droughts and cold weather.

When making the field, the most important concern is the prevention of soil erosion, and it is necessary to terrace the field to make the surface level. Therefore, the first step in making a field is building up earthen banks or making stone walls, and then making terraced fields. The success or failure of the field depends on the skill involved in knowing the nature of the soil and making banks that will not crumble or in using the stones dug up from the field to make stone walls.

Whether the surface of the terraced field is level or gently sloping also has a great effect on growing conditions and agricultural efficiency.

It goes without saying that the fundamental method for improving the soil of the field is to dig deep trenches and bury coarse organic matter in them, but another good method is to pile up the soil in tall ridges. In general it is sufficient simply to plant shade trees and trees that provide fertilizer.

Making Paddy Fields

At present it is easy to make paddy fields by clearing the plains with large machines, carrying away the rubbish, and leveling the ground. This also makes possible increasing the size of the fields, which will make mechanized agricultural even more convenient in the future.

However, there are some disadvantages to this method, because it is a very coarse method of construction;

(1) The topsoil of the paddy is of uneven depth, because of differences in the height of the field surface, and this results in uneven growth of crops.

(2) Because the large, heavy machines have put pressure on the soil. it is compressed more than necessary. Underground water will collect and stagnate..

it will reach an unnatural state of deoxidation, causing the roots to decay, and in many cases the desired result will not be achieved.

(3) A more serious problem is that, because the ridges all become concretized. the microorganisms in the soil change or die, and gradually the soil dies and turns to stone. There is a danger of making a field of dead earth.

Trees are the guardians of the soil in paddies, growing densely, large and small, on mounds in the fields. The landscape of paddies near Sukhothai, Thailand, is one of the finest examples in the world of the ideals of the natural farming method.

Here I would like to leave the discussion of making modern paddies and conclude with a few words about paddy-making in ancient times.

It would seem to be common sense to make paddy fields on level ground, but in ancient times it was often the case that people lived and made paddies not on the flat, fertile land beside large rivers, but rather in mountainous areas, where there was less danger of floods and strong winds. They would make paddies in river valleys and in terraces on the mountainsides, and devote themselves to farming there.

However, it is unnecessary to go to great lengths to grow rice in paddy fields. It is quite

possible to grow rice in dry fields watered only by the rain.

PART 6: SOWING A VARIETY OF SEEDS IN THE DESERT TO CREATE A FOREST FOR ELEPHANTS

You may think it reckless for me to say that we can revegetate the desert. Although I have confirmed my theory, unfortunately I have had few opportunities to prove it on a large scale. Recently, however, the government of India has asked for technical assistance in carrying out aerial seeding as a measure against desertification, so I have tried, in this hasty manner, to summarize my ideas and concrete steps for putting the theory into practice.

To put it very briefly, my theory is that human knowledge and actions have destroyed nature, and thus, if we abandon them and leave nature to nature, nature will recover on its own. This does not, however, mean nonintervention.

In the case of places like the desert, which have lost their regenerative power, we must mix seeds and microorganisms of every variety in clay pellets and scatter them from the air. In India there are more than 500 varieties of trees that bear edible nuts and 500 varieties of fruit trees. In addition, we should sow among them a mixture of 500 varieties of grains, vegetables, and green manure, ideally on the Deccan Plateau and in the desert. My supposition is that, no matter how bad the conditions, there will be some seed varieties suited to that place that will germinate. Even though some will wither and die from extreme dryness and heat, if we sow various green manures, vegetables, and grasses along with drought and salt-resistant plants, a number of them will survive. If for even a short time the surface of the earth is covered with vegetation, its temperature will be lowered. The role of the "pilot" plants is to aid in creating conditions that will allow other plants to germinate.

A second purpose in so wide a variety of plants and microorganisms is to awaken the sleeping earth. Among deserts, there are deserts of sand that have lost the ability to support life and have

died, but most savannas are young clay deserts in which the nutrients needed by plants are only sleeping. In order to cause chelation, in other words, to rouse the earth and bring about the rebirth of life, a variety of seeds of lower plant forms and microorganisms are necessary.

The earth will not come back to life if we only plant a number of useful trees in the desert. A plant cannot grow up in isolation. To grow, a hundred-meter tree needs enough soil for one hundred meters of roots. Also, trees of seventy, forty, and twenty meters are necessary. Furthermore, trees are needed to protect the base of the tall trees, and beneath them, undergrowth vegetation and microorganisms are necessary. Only with the aid of all these can a tree grow to a height of one hundred meters. Life does not exist in isolation, and a large tree is the crystallization of the cooperation of numerous living things. When a large forest is created, and the degree of nature, or density of vegetation, is high, then rain will begin to fall.

Clouds will form over the mountains and rise up from the valleys. The principal actors in the forest are not just the tall trees. Ferns, moss, and fallen leaves all have roles to play.

Rather than trying to secure water and cause rain to fall using human knowledge, we should stop ignoring the mind of nature. Then the earth will naturally be covered with lush green vegetation. The mind of nature is the core or heart of nature. If we do not know the heart of nature, the fundamental source of the creation of the cosmos, then no matter how much we observe the outer aspect of nature, the recovery of nature will be impossible.

If we grasp the mind of nature, which is God, and live in accordance with it, nature will be reborn naturally, and pitiful measures, based on human knowledge, to prevent desertification will vanish like the dew. The workings of nature are governed by nature. When we consider that the interference of human knowledge and action is the fundamental cause of global desertification, then the only measure against desertification must be the abolishment of human knowledge and action.

From the decision to abandon human knowledge comes the extremely simple, minimal human action of sowing a variety of seeds. Sowing a variety of seeds, which is in direct opposition to the current, scientific method of selecting and planting the most valuable, useful tree varieties,

appears to be quite easy, but in fact it is exceedingly difficult because it requires a fundamental reversal in human values.

In other words, it is much easier for people to choose something special from nature and use it for the benefit of human beings. But, humans make a grave error at that time. Extracting one thing from nature, in the name of development or of creating something new, and attributing value to it means making other things valueless. Making one thing useful results in abandoning other things as useless.

All human economic activity is opposed to nature, and it is the way of human beings to plant useful trees in the desert, cut down the undergrowth, and grow single crops, thereby sacrificing, as "weeds," many times the achieved amount of vegetation. For the same reason, from the viewpoint of nature, most human production and efforts to protect nature are linked to the destruction of nature.

People choose what to plant in the desert. Whenever they consider whether a plant will grow or not, whether it is useful or harmful, whether it will grow rapidly or slowly, they are selecting only special varieties and are discarding others. In other words, whenever they make a selection, half the plant varieties are lost. From the viewpoint of nature, the number of trees saved by humans is much fewer than number of plants overlooked. Plant varieties decrease and become simplified, so that they are losing both quantity and quality. And this triggers desertification. For this reason, when modern farms in the desert are abandoned after five years, they become deserts worse than the original.

There is no good or bad among the life forms on earth. Each has its role, is necessary, and has the same value. This is also the basis for sowing seeds of many varieties.

My measures for countering desertification may appear childish and unscientific, but they are based on a philosophical view of nature that transcends science. In order to understand and put into practice this one simple thing, we are forced to embrace the extremely difficult position (the revolutionary conclusion) that all of man's ideas and actions must be transformed. But if we can do this one thing, we can transform the world.

Method for Making Clay Pellets

The following is a method for making multi-layered bittern and clay seed pellets for use in revegetating the desert. Put a variety of seeds in a mixer. While rotating the mixer, add fungi that will aid the growth of the plants to the outer surface of the seeds. Spray a mixture of water mist and uncontaminated, baked clay powder onto the surface of the fungi, coating them, while rotating the mixer. Next spray a mixture of powdered bittern, clay powder, and slaked lime over the surface of the baked clay powder, while rotating the mixer, thus creating multiple layers.

Diagram 1 illustrates an actual multi-layered bittern and clay seed pellet for use in revegetating the desert. Seeds of more than a hundred common varieties, including trees, fruit trees, vegetables, grains and other useful plants are coated with microorganisms that are necessary for the growth of the plants, forming inner layer A. The uncontaminated, baked clay powder surrounding layer A forms central layer B. The bittern, clay powder, and slaked lime that surrounds layer B forms outer layer C.

This kind of clay seed pellet can be produced easily, in quantity, using a mixer such as a typical cement mixer with the inner blades removed.

In order to produce enough pellets to seed one hectare of desert land, the standard ratio is five parts finely-powdered clay, such as fired brick or porcelain clay, to one part of the above-mentioned seed mixture, but adjustments should be made taking into account the size of the seeds. The bittern is a brine obtained by boiling and concentrating sea water and should be 5% of the weight of the seeds. In place of the bittern, highly polymerized compounds may be used. Slaked lime should be 5-10% and water 5-10%.

The inner layer A is made by putting seeds and fungi into the mixer while it is rotating, so that the fungi coat the seeds. Next uncontaminated baked clay powder and water mist are sprayed in together as the mixer is rotated, creating the clay central layer B, which encloses the fungi. Then the bittern solution, powdered clay, and slaked lime are sprayed in together as the mixer is turned.

In this manner, round clay seed pellets, usually 0.5-1.0 cm in diameter are made.

Because the seeds in the multi-layered bittern and clay pellets are enclosed by layers of clay, they can, with the help of useful fungi, germinate and develop normally.

When bittern is added to powdered clay and they are kneaded together, the arrangement of molecules in the clay is changed, and the pellets become stable, light, and hard. They not only can withstand the fall to earth following aerial seeding, but also adjust to changes in dampness and dryness related to rainfall, becoming shrunken and solid. Thus, they seldom crumble or break, and the seeds are protected by the bittern in outer layer C from damage by most insects, birds, and other animals until germination is achieved. In addition, the slaked lime included in the outer layer aids the germination of seeds by neutralizing acidic soil.

Although it is possible to prevent damage by birds with pellets of clay only, in deserts and savannas it is difficult to prevent damage by mice, goats, and, in particular, strong insects such as red ants. Most insects and other animals are repelled by the extremely bitter outer layer C and will not eat the pellets. This not only ensures the seeds' germination, without the use of extremely toxic poisons, but also makes possible indiscriminate broadcasting of seeds over a wide area.

The plants on earth exist in reciprocal relations with other plants, animals, and microorganisms, and none can develop and flourish alone, in desert regions, in particular, not only are a variety of symbiotic plants necessary, but plants also cannot establish themselves without the cooperation of microorganisms in the soil. For example, pines used in revegetating the desert require the inclusion in the clay pellet of the hyphae of the *matsudake* mycorrhizal fungus, which can be cultivated using the natural culture medium invented by the author. Pines cannot live without the cooperation of the *matsudake* fungus. In connection with this, the cause of pine blight lies in the death of the *matsudake* fungus. In addition, if mycorrhizal plants are not inoculated with mycorrhizal fungi, and leguminous plants with nitrogen-fixing bacteria, we cannot expect their proper development.

Furthermore, the powdered fruits and leaves of the following herbs are included in the clay pellets, at approximately 3% of the volume of seeds. Derris root (used against beetles). Japanese

star anise (goats), Japanese andromeda (cows). Japanese bead tree (small harmful insects), sumac. and so on will protect seeds in the desert. before and after germination, from | cows, goats, ants. and other harmful insects. It is also possible, in a region that is completely ; desert, to make and broadcast seed pellets of fertile jungle soil (black soil). This soil is a treasure house of soil microorganisms and seeds and is of great value in actual use. Also, in the case of broadcast from airplanes, the pellets may break easily, so it is good to coat them with the synthetic resin Polyzol which is porous and absorbs water well. In place of Polyzol and other high polymers, seaweed paste may be used.

In addition to the fact that the fungi in the clay pellet described here facilitate the development of the seeds and the bittern and herbs protect them from being eaten, the slaked lime improves the soil. Thus. even in vast desert areas, where conditions for germination are poor, revegetation can be achieved simply by sowing the seeds, without concern about time or place. The practical results achieved in Africa, the United States, India, and the Philippines are backed up scientifically by my fifty years of following the natural farming method of no cultivation, no fertilizers, and no agricultural chemicals.

This pellet is not limited to the above mentioned examples, but can be put to use in various ways, given suitable changes. For example, it is possible to add seeds inoculated with fungi to kneaded clay and push the mixture through a screen or net. The variety of seeds chosen for inclusion should be selected based on the circumstances.

?

?

?

?

?

?

?

?

CHAPTERS 3: WHAT IS HUMAN KNOWLEDGE?

PART 1 UNBALANCED HUMAN KNOWLEDGE

A. The Rise of Science

The human race first appeared on earth approximately ten million years ago and began living what we would consider an appropriately "human" life at the most three thousand years ago. In Japan people began living what would be called a "civilized" life during the last two or three hundred years. However, with the rapid development of science in the last thirty years, without our even having time to consider that our high-level modern civilization has reached maturity, disorder has emerged on a worldwide scale, and in the last three years the world has literally exploded, and we are now engulfed in a wave of *fin-de-siecle* dissolution.

Is this major current in the history of human society inevitable? And what will happen to the world in the future?

The problem began at the creation, when man appeared on the earth. The collapse of the global environment that is taking place amid the confusion of contemporary society is primarily a bill that must be paid for the destruction of nature caused by its development through human knowledge. You could say that we are being called to account for man's original sin during the time of creation.

We are now being asked what is this human knowledge and civilization of which man is so proud, and what in fact is the meaning of the development of politics, economics, industry, and culture.

Sakyamuni Buddha said that all human thought is "turned upside down." He taught that all the things of this world, as well as human hearts, are emptiness and nothingness.

It may appear that now God and nature are about to pass a final judgment on the human race, but it is man himself who is rendering this final judgment.

Since I became aware of one thing (God) some fifty years ago, I have been saying that human knowledge is impossible and that all human actions, which begin from unknowable knowledge, are futile, but my words have been in vain, and not one person has lent an ear.

If human knowledge is a fiction, then the development of culture and civilization that are based on the accumulation of human knowledge must necessarily end as abortive flowers, meaningless fictions.

It can be said that natural science, which developed suddenly in the West based on philosophy, has committed a grave error from the outset. The reason for this is that Descartes affirmed the human ego that says "I think" and caused science to start off from the dualism of the human position.

Moreover, an even greater source of error was the philosophy of Kant. He affirmed human *time* and *space* as *a priori* concepts and made these his base, but his view of time and space did not leave the bounds of relative thinking, nor did it corroborate the absolute time and space that have existed in this world from the beginning.

Without their reality being validated. Kant built up various human ideas on top of this concept of time and space and vouched for their certainty.

It was his view of time and space that affirmed the veracity of man's various concepts such as the law of causality, fate, necessity, and chance and mistook the truth of modern science for absolute truth.

Because Descartes' and Kant's views of time and space were nothing more than relative judgments of discriminative thinking, they cannot become the wisdom that clarifies the true state of things.

Many of the religions and philosophies of the East, unlike Western philosophy, deny the value of human knowledge and take the position of transcending and ignoring the time and space that man see. Sakyamuni, Bodhidharma, and Lao-tze all warned that human, discriminative

knowledge is a dark knowledge that provides no way out.

Even in the West, Jesus recognized the error of primitive man in eating the fruit of the tree of knowledge as the original sin. Why is it that, while human knowledge has been disavowed by holy men in both the East and the West from ancient times, man has continued to hope for the development of human knowledge?

I have already discussed what human knowledge is in my three books about *mu* nothingness, looking at it from various angles, but I would like to touch upon its basis once again at this time.

B. The Birth of the Relative View

The conclusion and theoretization that this world is a relative world began with Descartes' well-known, dualistic phrase, "I think, therefore I am."

His dualism assumes that in opposition to the I (A), there is a second existence, an other (B 'nature), and with the two mutually guaranteeing each other, the existence of I (A = people) is realized. However, in order to confirm this existence, the confirmation of a third "I" (C = God) is necessary, and if the existence of this third "I" is not proven, Descartes' reasoning is simply a syllogism.

The existence of A and B, the two things that are relative to each other, is not confirmed simply by their being two independent things, and only when they are bound by the thread of C (God), the third existence, are they in a relationship in which their existence is confirmed.

However, Descartes did not confirm this third existence as an outside position (God) but did nothing more than hypothesize it. Therefore, the "I" that he was looking at was only the ego (human beings), and depending on the time and place, there are infinite variation. Because he did not start from the immovable "I" (God) that exists in truth, he is standing on shaky ground. As long as reality is not certain, the relative view that stands upon it is unsteady.

In other words, the relative view that comes into being based on man's discriminative thinking is shortsighted and limited, flat, and many-sided, and is not something that man can truly rely on.

Because natural science had its start based on Descartes' shaky relative view, it follows that, in the end, all its conclusions are castles built on sand. The time has come for us to recognize the truth of Kant's argument that human knowledge is impossible and to fundamentally rethink our view of the world of human knowledge.

I can no longer stand to sit back and tolerate the flat, two-dimensional interpretation that man has had of the world until now. a relative, yin-yang, positive-negative world. Here I will set forth my general ideas in brief detail.

The Birth of Discriminative Knowledge

What is the human knowledge that has become the source of the relative view of time and space? When and how is human knowledge born?

From the lime that a child sees the moon floating in the sky and says. "The moon," human knowing begins. When the child, with its instinctive sensitivity, has become aware of the moon, it discriminates between a subject that is "I" and an object that is the moon and comes to know the thing called the moon that stands opposite it.

Human knowledge is nothing more than discriminative knowledge, a relative knowledge that discriminates self and other. All it tells us is that man has taken a step apart from nature, confronted it, and has become cold and distant. (In the following pages I will distinguish between "knowing" and "knowledge," which includes human judgment.) even if we say we know the green of nature, this is simply the understanding that discriminates green from red, or black from white. If we have not grasped the green of the grass and trees philosophically, to the life at their core we cannot say that we have really known and understood true green. Man simply believes he has understood by making a partial, discriminative judgment of the outer layer.

Although he accumulates discriminative knowledge, insisting that he has understood, man does not approach the true state of things, but on the contrary, invites an escalation of doubt that results in deepening the riddle even further.

If we give a simplified, mathematical explanation of discriminative knowledge, knowledge of a whole (one) is broken into two and explained, and these are then divided into three and four and analyzed. Thus, when we look deeply into the knowledge of a whole, break that knowledge in two, and then further break down that knowledge, we are simply under an illusion that knowledge has increased.

But can we say that by endlessly repeating our analyses and divisions and then gathering up all the tiny fragments, we have advanced human knowledge?

In the end, the advancement of human knowledge is nothing more than an expansion of the fragmentation of the unknowable knowledge called discriminative knowledge, so no matter how much we accumulate, synthesize, and make judgments, this effort not only is not useful for approaching and clarifying the true state of things, but on the contrary, it simply throws us into confusion. Man's contradictions simply expand, becoming increasingly acute and severe.

Since ancient times, man has mistakenly believed that discriminative knowledge is directly linked with true wisdom (the wisdom of God) and has made great efforts, believing that through discriminative knowledge and the development of civilization he could solve all of mankind's suffering, but from hindsight we can see that the development of civilization has done nothing more than expand and intensify the contradictions.

In the end, all of man's knowledge and actions have been nothing more than acts against nature, and as a result, they have been linked to the destruction and collapse of nature. Man himself is asking for God's judgment.

What can we see waiting for us in the direction man is headed? Discrimination is born. The mental image of "moon" takes concrete form, and we want to "know the moon." This desire materializes, and we succeed in "picking up stones from the moon." The romance (dream) of "swimming in space," an abstract notion, is given concrete expression, and now we are attempting to build an enormous space station.

What a miserable thought it is that man's dream for the 21st century is to stay in a deluxe, spaceship hotel. That is a perverse dream, indeed.

C. The Birth and Expansion of Contradictions

Human knowledge is a tragedy from the lime of birth. The moment that we divide nature becomes the starting point for the internalization of the contradiction of confrontation and struggle between two.

When one thing is divided into two and they are placed opposition to each other, then of necessity, a force goes to work to return the two to the original one. This restorative force is the origin of the contradiction. It is important to understand that the birth of discriminative knowledge is also the birth of contradictions.

For example, when male and female have been distinguished, the restorative force that tries to rejoin them to the original one is called love, but love necessarily accompanies hate in a mutual discord. Human love and hate are the two sides of a coin and are born at the same time.

When freedom is sought, then equality is destroyed, and creating rich people means creating poor people. The same roots are found in the contradiction of encouraging free competition while preaching coexistence and mutual prosperity and the current contradiction of trying to invigorate the economy while living in harmony with nature. This is an inevitable fate based in the discriminative, relative view.

When we try to solve the contradictions of the relative world and human suffering, whether by abandoning or transcending our relative way of looking at things, there is only one way. We can only walk the path of not-knowing, of no-mind, no-will, and no-action. There is only one path of atonement for the original sin of primitive man. eating the fruit of the tree of knowledge. That is to create a Garden of Eden of do-nothing nature. In other words, we can only return to original nature, become one with it, and live in a world of non-discrimination and unity (symbiosis).

Within the true, non-discriminative stale of nature, there is no contention or suffering.

With Dialectical Development, the Contradictions Expand

Man, however, has thought that the only way to resolve these contradictions is to pursue Hegel's materialistic dialecticism and has gone ever more deeply into it.

According to dialecticism, the effort to resolve contradictions becomes the driving force, and in the effort to move to the right or left, there is sublation, a third path appears, and the contradiction is resolved, but as was suggested earlier, the accumulation of discriminative, relative views only deepens the confusion.

The more efforts you make to resolve contradictions, the more they expand and intensify.

PART 2 A CRITICISM OF DARWIN'S THEORY OF EVOLUTION

A. Classification a Result of the Discriminative View

Human knowledge develops. In causing the idea that man is the lord of all creation and that he must progress to take root among humans, Darwin's theory of evolution has had a great influence.

To summarize, the Darwinian theory of evolution breaks down the 4.6 billion years since the earth came into being according to human time, observes the living things that came into existence at certain times and places, and examines their mutual relations and correlations. Based on this the diversification and conditions of systematic development of the organisms are inferred, they are classified, and this is all developed into a theory of evolution.

In other words, when oxygen and water formed on the planet, which in the beginning was an inorganic mass, primitive life forms began to appear, these evolved, and new life forms appeared. At first, extremely simple microorganisms such as amoebae and other unicellular organisms were born, they developed and branched out, organisms of various forms were born, and gradually the

complicated higher plants and animals began to multiply upon the earth.

The idea is that the life forms on earth came into being naturally, along with the development of the earth, and at the basis of the assumption that new life forms appeared in succession is the so-called theory of natural selection. Various life forms appear on the earth and live as part of the food chain, but only those that adapt to their environment survive. This, in other words, is the theory of the survival of the fittest. That the strong prey upon the weak is the inevitable fate of living beings. Among all the life forms, those that are selected by nature and survive the struggle for existence obtain the right to live and reproduce. This is the basic framework of the theory of evolution.

There are certain questions here that need to be answered. (1) What is the basis for classification, in other words, according to what criteria is each life form distinguished and differentiated? (2) By what criteria are organisms classified as primitive life forms or lower and higher plants and animals? (3) According to what measurement in the flow of time did the living things evolve and develop?

What can we possibly learn about these from a chart showing the distribution of the life forms that have appeared on earth?

Darwin's diagram of the evolution of life forms is historical, following the flow of time. The life forms are organized according to the age in which they came into existence, and therefore, each is localized in place and time, and the systematization can only be fragmentary and discontinuous.

In addition, even if one searches for and classifies the similarities and differences among different species, the basis of such observation relies, for the most part, on judgments of exterior appearance. There is hardly any discernment of the inner, qualitative life of the mind.

Regarding the basic connections and correlations among different species, we have only the discontinuous continuation of the diagrams of the origins of species. Therefore, we can say that no direct grounds have been shown to establish that life forms have evolved.

If we record reality just as it is, we will not necessarily gain a correct understanding. We are

only observing the outer layer of nature, and if we do not observe the interior of nature and look deeply into its heart, we will not be able to grasp its true state.

Before criticizing the individual scientific facts of the theory of evolution, I first wish to criticize the discriminatory thinking that underlies the theory.

Certainly, there are various different forms in the natural world. Large and small, strong and weak, wide and narrow, many and few, hard and soft, slow and fast, motionless and active — the variations are infinite. But on what basis do we determine what is strong or weak? What is our standard for saying something has adapted or is in harmony? To decide that the phenomenon of the survival of the fittest is the providence of nature is only the selfish, strongman logic of human beings, who discriminate between self and other and who want to possess nature.

In nature, there are no kings or armies. None of the animals considers the elephant or the lion king. Elephants and tigers will lose out to ants. Whales are pursued by Orcas. In the food chain, is it bear over fox, fox over hawk, hawk over snake, snake over bird, bird over bee, bee over insect, insect over mite, mite over bacteria, bacteria over man, man over bear? No one can say which is the stronger. In nature there is no discriminatory view. The living beings of the earth are simply living in a certain place at a certain time.

There are no concepts of time and space such as people have, so there is no differentiation or discrimination in nature. There is, fundamentally, no object with which to struggle. Detached and without desire, other living beings do not hoard or steal food, and so there is no fighting among factions or wars.

The reality is that in nature there are no distinctions of rich and poor, wise and foolish, and no fear of power. Of course, in this realm there is no sense of superiority or inferiority, nor is there any need for flowery words such as mutual cooperation and prosperity, peace, or freedom.

We would have to say that there are no grounds anywhere for the discriminatory view, derived from the relativity that underlies Darwin's thought, the view of superiority and inferiority that decides the single-celled organisms are lower and the more complicated life forms higher.

It is nonsense to think that the energy of the strong, thinking that it is natural that the strong

conquer and survive, is the motive force in the development of living things. The cockroach may have a greater possibility of survival than the gorilla.

The proof that all living things are a continuous life form can be found in the sexual breeding, the fundamental source of life that, with the development of genetic engineering, is used to create different breeds. Usually sex is divided simply between the two poles of male and female, yang and yin, positive and negative, but in mushrooms there are four poles, and some fungi have been discovered that are thought to have eight poles. Ultimately, things such as sexual difference are essentially continuous, and we can sense no distinctions.

Might it not be justified to consider even the elemental particles such as electrons, protons, and neutrons to be a kind of sex? When *we* look at all these aspects, we can consider all things to be, fundamentally, one unified body.

The four genetic factors of DNA in a gene, the four chemical bases, the four spores of the *matsudake* fungus, the eight spores in one sac of the ascomycete — we cannot consider these to be unrelated. Might we not see the four-polar cross-fertilization in the mushroom and the random breeding of the eight-polar fungi as the same as the random dance of the elemental particles, as the wild boisterous dance of Shiva?

Until now science has started from the standpoint of human time and has carried out its experiments within human space under human concepts.

Darwin and others divided time into human, historical time, arranged the organisms they had classified according to the discriminatory view in these small fragments of time, and systematized them. For that reason, species that were originally brothers were made into species of different things.

In addition, Mendel's and Darwin's experiments were all conducted in fixed places with specific materials, such as beans, drosophila, and so on. Consequently, their conclusions were never more than localized, microscopic conclusions. No matter how accurate a scientific conclusion may be, from a comprehensive philosophical point of view, the result is that, on the contrary, we lose sight of the true form and mind of nature.

In the end, being caught up in trivial matters, you lose sight of the big picture, and you overlook the true thesis behind living things. A woman who appears beautiful from a distance may have a pockmarked face when seen at close range. and whether you see great or small differences between butterflies and moths, dragonflies and fireflies depends on whether you are looking macroscopically or not.

In the eyes of children, frogs, fish, birds, and squirrels all appear to be the same friends, but the eyes of adults are drawn to the differences in appearance and form, and thus they appear to be different animals.

The conclusion is different, depending on whether we look macroscopically or microscopically. Bacteria, plants, and animals all appear to be different forms of life, but if we look at them macroscopically, the large differences disappear, and if we look at them from the standpoint of transcendent space and time, in which infinity appears to be an instant, then we can conclude that they are one continuous mind and body.

Macroscopically and microscopically do not simply mean whether one's eyes are open or closed. They mean that different scales are used for measuring time and space. Depending on whether you use human time, measured in minutes and seconds, or the time of the eternal Ganges River, on whether your field of vision is as wide as the inside corner of a box or as wide as the universe, the appearance of the world will change completely.

No matter who is looking, it is common sense to say that there is a great difference between living and non-living things. In fact, however, the difference, great or not, can be said to be nothing more than differences in the concepts of time and space.

However, people are convinced that the space and time they are looking at are the same that everyone sees and that they are grasping scientifically something sure and reliable. But if we look at them from the world of enlightenment, which transcends space and time, we cannot help thinking that the time and space that people believe in are extraordinarily minor and microscopic.

Even if we speak of primitive or backward life forms, this is only within the realm of common sense time. and if we speak in terms of cosmic time, it is the difference of a momentary flash of

lightning, and we cannot speak of backward or advanced, we are able to see that the inanimate and even the living things on this earth are a single mind and body that originated at the same time.

In short, all scientific truth is established on the concepts of time and space, but these concepts of time and space are unsteady, and since they waver according to time and occasion, naturally the conclusions based on them also are shaky.

Let me try to explain with the following example. When I saw the specimens and fossils of plants, animals, and microorganisms in a natural history museum, I not only was amazed by the efforts that have been made by scientists, but also realized that it is possible to reconsider Darwin's theory of evolution from a macroscopic point of view.

In particular, I came upon a fossil (shown on p.) dated at 3.5 billion years, shortly after the earth came into being. This sedimentary rock contained bacteria and fine mineral particles mixed into strata of blue-green algae and red clay. It seemed to me to provide proof that living and non-living things came into existence at the same time, when the earth was created.

The stratified pattern of this fossil led me to think that even the hypothesis that living things had created the inanimate earth was possible. Of course, it is also possible to think that in the beginning, the hydrogen, oxygen, and carbon in the atmosphere condensed, became magma, and cooled. From the inanimate earth, "breathing stone" (fossils) of an intermediate substance formed, from these the oxygen and hydrogen needed for life to exist were released, and in the following four billion years, a variety of life forms came into existence.

However, these hypotheses are both expressed in terms of four billion years, in other words, human time, but if we take the cosmic view of space and time, in terms of trillions of light years, cause and result are reversed. The human argument over which came first, the chicken or the egg, is futile. The explanation of space and time will be determined by whether things (space) are taken to precede time, or time to precede things.

Scientific conclusions are all only truth within the concepts of time and space that the person has thought of. Therefore, they are nothing more than the products of relative concepts. Time and

space always change according to time and occasion. Fast and slow, narrow and wide, large and small, many and few — all are uncertain. They can change in any way according to one's mood.

Even the historical time and space that Darwin believed to be the most certain, when considered from the standpoint of transcendent time and space, become meaningless, as does the discriminatory view that is the source of the differences in form of all the living beings and of such concepts as early in origin, late in origin, new species, and old species.

I will discuss the view of true time and space further in the chapter "What Is Time?", but here I will leave the matter having pointed out the narrowness of the scientific view seen from this view of time and space and the prejudice that arises because of it.

B. The Theory of the Simultaneous Origination of All Living Things

Fifty years ago, when I was a young man hoping to become a microbiologist, bacteriophages, which eat bacteria, were discovered. They were said to be nonliving things that reproduced, and I was quite interested in them as some intermediate matter between non-living and living things. Research on viruses has advanced to the point that today the boundary between living and non-living things has disappeared.

The sense that prevailed until then, that plants and animals could be distinguished by whether they moved or not, became meaningless, of course. Looked at from the standpoint of their elemental particles, discrimination between living and non-living things, plants and animals became nonsense.

The fact that the structure of the DNA in the genes of all living things is the same indicates that all living things are fundamentally related. Also, the protein that makes up the genes is an intermediate material between living and non-living things and thus plays the role of a thread tying together the living and non-living.

The rudiments that make up the proteins are the subatomic particles, and in the world of

subatomic particles, all things, living and non-living, depend on the arrangement and movement of these particles.

According to the theory of evolution, living things sprang from non-living things, and complicated life forms, in turn, sprang from simpler life forms, but my interpretation is that in the beginning all things came into being at the same time, as a community bound together by the same fate.

(Having said so, this does not mean that I think that by elucidating the true form of the subatomic particles with the quantum theory of atomic physics we can solve all the fundamental mysteries of the universe. The subatomic particles are not the ultimate cause of all things, they are only the result.)

All things in this world come from the same common elemental particles, all living things possess common genes, and at base are bound together. Therefore, living things all share the same fate, are essentially equal, and could just as well have appeared on earth in the same form, but according to the combination (arrangement) of the four genetic bases, they come into being in a multitude of forms. In addition, the times they come into being vary according to the natural environment.

Even if new living things are born, based on the arrangement of their genes, a majority fail to thrive and die young. (It is common for over 99% of the species of living things to disappear along the way.) It is simply that only those things that fortunately surface and catch the eyes of humans are classified into species, genus and family.

If all the combinations of the four genetic elements were to originate and grow normally, then the gaps between species, genus, and family should be filled in to make a continuum.

There is a great difference between green plants and human beings, but their genetic material is the same, and the only difference is whether the arrangement is such as to produce green or to produce humans. To put it simply, whether something becomes a plant or a human being is just a difference of whether or not the genetic factor for green surfaces or sinks.

If all the combinations of the four genetic elements came to being and appeared on the earth,

then naturally there would be plants close to humans in form, intermediate things, and humans close to plants, and we would be able to see clearly that animals and plants are a continuum.

In fact, however, only a small portion of the combinations of the four genetic elements have successfully come into being, while about 99% of the other combinations have been lost. It is also natural that there are no fossils of the intermediaries between man and plants, as the genes that would have become those intermediary species have disappeared like aborted fetuses. There is a great gulf between the two that have survived, and they appear to be completely different.

It is the lure form of nature for animals and plants, as good friends and relatives, to be born on the earth at the same time and to disappear from it at the same time. They are not things that developed separately, with different species and forms, to live independently, reproduce, and disappear.

Harmful Insects Create New Varieties

I was still a young man when I first began to be vaguely aware of these things. I was doing research in the plant pathology laboratory of the Yokohama Customs Office on the "sexes" and reproduction of Eumycetes. (There are some with four sexes, others with eight sexes.) I was amazed at how sex in microorganisms resembled sex in animals, and this became the source of my quandary about what human beings are.

I was reminded of it again when, ten or so years ago, I crossbred nonglutinous rice from Burma with Japanese glutinous rice and developed a new variety suited to natural farming.

When I tried crossbreeding the two rice, which are extremely different in character, the characters of the parents were intermingled, so that I could get twenty, thirty, even several hundred different varieties, but when I arranged them, I saw that all their characteristics formed a continuum.

There was nonglutinous rice close to glutinous, intermediary forms, glutinous rice close to nonglutinous, and some in which glutinous and nonglutinous grains were mixed together on a

single head. Just as there are short people, some rice reached a height of 20-30 centimeters, while others were giants more than 150 centimeters tall. There was also a succession of different colors of rice - white, red, and blackish-brown. Some was flavorful, some not, some powdery, some sticky. In this situation, it was impossible to say which was good and which was bad. I also came to question the meaning of distinguishing between glutinous and nonglutinous rice and between paddy and dry field culture.

Since my aim, tentatively, at least, was to develop a sturdy, heavily bearing rice, I selected a variety that was no more than one meter tall and that bore from 200 to 300 grains per head and registered it, but in my heart I felt only emptiness.

Even a heavily bearing variety can turn out to be anything, depending on the grower, the soil, and the way it is cared for. Flavor also depends on the person, and when you are hungry, any rice will taste delicious. During the New Year holiday this past year I went to Imphal in India. The rice there was more delicious than the varieties considered the best in Japan, and at only one-tenth the price. In short, every variety of rice has good points and bad points. It is only people who discriminate among them, and if we look with nature's eyes, we can make no distinctions.

There is no meaning in man's creating new varieties, and seen from the eyes of God, which is nature, human beings are laboring to create fabrications and imitations, and is only destroying nature.

When I was crossbreeding rice in my field, I was amazed to find that, in the fields of the natural farm, people do not create new varieties by artificial crossbreeding, but that harmful insects were creating new varieties.

After locusts and other insects had chewed round holes in the rice grains just when the heads are sprouting, at night, slugs and snails, as well as cutworms, came along, and when they had eaten the stamens in the holes, windblown pollen from other varieties adhered and achieved fertilization. In other words, rice, which is said to be self-pollinating, is also pollinated by other plants, and new varieties can occur naturally. This is a concrete example of how narrow and limited are the experiments and vision of scientists.

Because a typical paddy field is flooded and cultivated year-round, the unhulled rice of the varieties from natural hybridization are broken and easily die midway through the cycle, but in a field on a natural farm, they can easily survive, and there are many chances for new varieties to appear. There is no need for people to imitate nature by carrying out artificial crossbreeding.

At that time, along with crossbreeding rice, I also experimented with the crossbreeding of rice and weeds such as Deccan grass and foxtail and was thinking that if that went well, I would try with foxtail millet and Chinese millet, but my original purpose was not to study rice. I was only amusing myself by going in the opposite direction of that being recommended by agronomists at the time, doing a reversed breeding in search of atavisms, and so I avoided going deeply into it.

With today's technology, I undoubtedly would have succeeded, but I hadn't the slightest intention of setting foot in the domain of the biosciences, and stopped at the point of confirming the possibility. Technologies for creating new varieties of rice are a blasphemy. When I saw insects that are considered harmful creating a succession of new varieties in the fields of my natural farm, I thought it would be better to leave things up to them, and I stepped back.

I also was deeply impressed, at that time, with the thought that the classification of plants, the placing of them in species, genus, family, and order, was not only a great imposition on the plants but also of no use at all to human beings.

C. The Theory of the Rising and Sinking of Genes

The Reason Why There Are No Fossils

In addition, the reason that there are so few intermediary forms between species and that we cannot find fossils of them is not because they did not exist. Rather than saying that the genes that become intermediate species have not functioned at all, we can only think that even if they were born, they died in infancy and did not come to the attention of human beings.

Even though a single acacia tree produces from ten to a hundred million seeds, few seeds

actually germinate and grow, and perhaps only one or two trees in ten years will survive as its descendants. The fact that at first glance a species seems useless or that there are no intermediary species, so that there appear to be large gaps, is the result of man's shortsightedness.

It is natural that, even if many intermediate species actually come into being, most of them disappear, and therefore it follows that we cannot find fossil specimens of intermediate species.

When I became aware of this, I referred to it as the surfacing and sinking of genes. The reason that all living things have different forms and are not continuous is not because there have been no intermediate forms. At some point along the way they have disappeared and sunk, and have been overlooked, and so different, disconnected species and varieties are left.

There appear, at first glance, to be innumerable distinctions among the living things in this world, but if all the combinations of the four genetic factors had survived, then of course all living things would have related characters. Only a small portion of the arrangements of the genes has survived, so it only appears that the living things on earth are different.

We can look at my theory of the surfacing and sinking of genes using the islands on the Seto Inland Sea as an example. The many islands have various shapes, they have been given different names, and they appear to be separate islands, but at the bottom of the sea they are all connected to the land and are the same island of Japan.

Moreover, if we dove to the bottom of the Japan Sea, we would also see that South Korea and China are joined beneath the surface of the water and are part of the same Asian continent. Nevertheless, viewed from above the water, the Seto Islands and the main islands of Japan, South Korea and China appear to be separate islands, and it is easy to lose sight of the fact that they are connected beneath the water. In the same way, the animals and plants living on earth appear to be different, but they also are all connected at the base.

All the things in this world are connected in the fundamental realm of subatomic particles, and all living things are simply a single continuous body linked by the same genes. Because people can only see the outer appearance, the parts exposed on the surface, there appears to be a multitude of different, independent things.

In short, whether the genes survive, surfacing like islands floating on the sea, or sink and disappear beneath the sea, depends on the arrangement of the genes and on the dance of the subatomic particles.

The human beings on earth are distinguished by several different skin colors, but in fact, the natural situation is that there is a color continuum among people. If all the people of the world were gathered in one place, we would find that each racial or ethnic group comes in a variety of colors, that the colors and shapes form a continuum, and that we could not classify them. They are all relatives, born of a single gene. When we look at them from a macro perspective, they are all alike in color, a single body. Rather than shortsightedly noticing individual differences and expanding the discriminatory view of things, we ought to look macroscopically and heighten our sense of everything as one mind and body.

The Mad Course of Genetic Engineering

The true nature and form of living things in the natural world is that of a single mind and body. This is proven by the fact that all living things share in common the same genes. This means that all living things have the potential ability to become anything.

With the current technology of gene exchange, it is easy to create different varieties. Moreover, we have now entered the stage of experimentation with creating living things of different genera and families. Soon we will reach the stage in which humans will acquire the technology to turn animals into plants and plants into animals.

But, there is sufficient proof, philosophically, that all things are a single, unified mind and body, and scientific corroboration is not only unnecessary, it is dangerous. When humans come into possession of the power of the Creator, they will unknowingly become demonic Creators, because human knowledge is false wisdom. It does not matter how the forms are changed, but it is plain as day what will happen when man begins to create things without understanding the mind of nature that is lodged within them.

If we follow Darwin's theory of evolution in thinking that one form of life evolved into the millions of life forms that exist today, then it is only natural to think that it is justifiable to add a few new species or genera. Man may hope that he can create even better things, but the result will be the opposite, and only deformed things, far removed from nature, will be created,

People take the optimistic view that, even if we add some new variations to this drama that is being acted out on the stage called "earth" by hundreds of actors, they will all assimilate with nature. But instead of recognizing that, by manipulating the genes of living things, they are in danger of losing the "mind" of those beings, people are taking the risk of throwing the natural plot of the play into confusion. At that time, the matter will not be confined to a single mad actor (living thing) appearing on stage. In other words, this world is the common stage for all living things as a unified body and mind, a stage on which a single actor, changing costumes and appearances, performs as a cast of thousands. If this actor should lose his mind and soul, the earth would become the stage for the demons' wild dance.

In my view of nature, even the questions that are dismissed as abortive flowers according to the generally-held theory of evolution shake the very root of all living things. All people come from one person. If one person becomes mad, all become mad.

Let me explain mathematically why various living things can be created by human knowledge and action and then become warped. If we add zero to zero, we get zero, but in the real world, 0×0 does not equal 0, it equals 2. The forms are doubled. When 0's are lined up next to each other, they form a line, and if they are arranged in three-dimensionally, we get pyramids and other three-dimensional forms.

Even if we understand that the functioning of the genes of living things is determined by the way the four bases of DNA are arranged, it is optimistic to say that it is impossible to throw the living things on earth in to confusion according the arrangement of the bases and that genetic engineering will not get out of control.

Moreover, there is much we do not know, not only about shapes and forms, but also about the factors that determine the infinite variations in the natures and minds of living things. We may

think that humans becoming the Creator will not happen until far in the future, but as far as number, quality, and volume are concerned, man already has obtained the keys that will unlock them. Technologies for changing human emotions and temperament are advancing steadily, and the day is probably near when they will become the basis of a business.

What will happen when not only the forms that are concealed within the genetic factors but even minds are laid open, and man begins to control them? What happens when the sexes are no longer confined to the two poles of yin and yang but are developed with abandon into four sexes or eight sexes and then abused? Surely the result of such random breeding will not simply be the birth of monsters and curiosities. We will soon reach the point at which we cannot imagine the future of the human race.

In other words, we cannot predict the future. Diviners study the state of this world using divining rods. When they arrange the rods on a flat surface and change their arrangement, various meanings become apparent. With these, they divine the fate of all things. This resembles the way that all living things are created by the arrangement of the four genetic factors.

Four symbols are drawn on the four surfaces of the rods. It is said that, according to the arrangement of these, not only the forms but also the spirits and minds of all things can be understood. That being the case, we could say that divination can foretell the future of the world of subatomic particles, which is the object of study in atomic physics.

However, even divination does not transcend the relative world. Therefore, I can solve all the puzzles of this world with divination. That does not mean that I consider it the highest index of truth. Even if divination obtains the truth in the dual realm of yin and yang, as long as it does not stand in an absolute position that transcends that realm, it cannot reveal absolute truth.

The mandalas used in esoteric Buddhism to reveal the realm of enlightenment. From a single true Buddha in the center, buddhas fly out in every direction, representing how this world came into being, but the important thing is not the design that represents the truth. The important thing is how we bring the truth to life.

The knowledge of the biosciences and genetic engineering is not something that surpasses

divination and esotericism, which appear to be mathematical philosophies, and that draws closer to God. It seems to have ignored natural laws and natural wisdom and to have begun racing blindly forward. A science that has turned its back on God is digging its own grave.

The question of the theory of evolution is not simply a biological question. It is a question that includes mathematics, chemistry, and physics, and is a key to solving the infinite problems that burden human beings.

It is almost impossible for modern man to abandon the idea that plants and animals are different and to adopt the idea that animals and humans are members of the same family. Nevertheless, he cannot compromise the truth that all are participants in nature. As one piece of evidence in my negation of the human knowledge that has come to be regarded as common sense. I will set forth here a new theory of biological evolution.

D. The Dharma-Wheel Theory of Flux in All Things

For some time I have advocated a "dharma heel" theory of development to replace the single-plane dialectical theory of development, but here I would like to propose a dharma wheel theory of biological development to replace Darwin's flat, single-plane theory of evolution.

The dharma wheel is a representation of natural law. Nature expands in all directions, three-dimensionally, like a mandala. and at the same time, as it develops, it congeals and contracts. We can see these changes of expansion and contraction, like a typhoon, as the dharma wheel, the form of nature.

In other words, the entire world of living beings is freely expanding and contracting in all directions, a constantly changing body of life that shares a common fate. There is neither evolution nor devolution, and we can see motionlessness and oneness as its true aspect.

In Darwin's theory of biological evolution, the origination and development of the various life forms that have surfaced and sunk in the flow of historical time, in other words the human time

that is commonly used in the world, are classified as a discontinuous series.

In response to this, I would like to see if, by looking at the natural world philosophically, from the perspective of a three-dimensional clock that causes fourth-dimensional time to run in three-dimensional space, I can analyze the process of origin and decline of the living things on earth. In other words, my theory of evolution is a view of the history of the living and non-living things on earth seen from the standpoint of transcendent space and time. You could call it a transcendent space-time view, in other words, an evolutionary theory of the living and non-living things on earth as seen from God's standpoint.

To put it briefly, at the creation, along with the birth of the rest of the universe, the earth and all the living things on it were born as a single unified body with a common fate. and all the propositions regarding the roles, aims, and work of each of them were concluded.

According to the explanations of nuclear physicists, all things start from subatomic particles, so that both inanimate things such as soil, rocks, and minerals and plants and animals are made of the same elements. Also fire, air, water, water vapor, sound, electricity, electromagnetic waves, and radiation all come from the same subatomic particles, and the reason they appear to have different forms to human eyes is on account of the high speed, revolution, and random movement of the dance of the particles.

When we consider that the only reason people think there is a great difference between the animate and inanimate worlds is because of the way they see with their human eyes, and that everything, not only things but also what are thought of as phenomena, are nothing more than the dancing of the same subatomic particles. we must ask once again what is the significance of man's discriminative way of looking at things.

To argue about whether living or non-living things came first, whether bacteria or viruses came first, whether plants evolved and animals were born from them, has no more value than worrying about whether the heavens or the earth are moving or whether or not the sun came before the rest of the Milky Way.

The course and process of the birth and death of all things on earth, animate and inanimate,

under the direction of God, appears to have been written into God's program called "the creation of the world."

From God's point of view, of course, there is no difference between animate and inanimate things, and the movement and changes of all things and phenomena in the universe have been put into a sophisticated computer that exceeds human knowledge, the great law of nature (the great dharma wheel). Of course, because information about all things, living or otherwise, is stored in this computer, all things are designed so that one is many, the individual is the whole, the whole is perfect, there is no waste and nothing is useless, and all things perform their best service.

Therefore, at the creation, in the momentary flash of light in which the universe was born, the fate of the planet called Earth was settled, and the outline of the history of the rise and fall, surfacing and sinking of all living things born on the planet was decided. My theory of evolution is not about evolution, but about the surfacing and sinking of living things.

My conclusion is that at the creation, subatomic particles (the ultimate substances) flew about in the universe of absolute space, and in the midst of this chaotic situation, the dancing particles combined and broke apart, accumulated and dispersed. From this movement all things were born and disappeared. This state is called the movement or change of nature, and this change and process is simply given the general name of evolution.

The elements that have made up the universe from the time of creation, the elements of this planet, and the elements that form the bodies of living things on the planet have been the same, in the past and in the present. While it may seem not worth mentioning that the elements in inanimate things and in animate things are the same, it is extremely significant.

According to man's discriminative way of looking, these things are all differentiated as things with different purposes, but if we look carefully at the base of everything, at the level of microscopic elements, of the ultimate subatomic particles, all are the same thing. And most important is that the life and purpose of all things is the same.

Seeds Sown by God

To give a mythical explanation of how the seeds of all living things were sown on the earth at the creation, God rolled the seeds of every living thing into clay pellets and gave them to the angels to scatter randomly.

The angels attached computers bearing God's wisdom to each of the seeds so they would not go astray. Therefore, the seeds were all the same, but in conformity with their mission, the shapes were a little different, and their time of growing also became different. For example, some seeds were programmed to become active at the same time as the birth of the earth. Others were programmed to thrive in water. Some were suited to the mountains, some to the deserts. The seeds that were designed to become human beings were made to come to life in the later ages of the earth.

Of course, millions of seeds were broadcast at one time, so the living things of the world took on various shapes. Some became microorganisms, some became green plants, some became animals that could run around. This was the form of do-nothing nature

From the point of view of human time, it appears that from the birth of the earth until now different types of plants and animals have come into being at different times and have evolved, but if we look macroscopically, so that infinity appears to be a single moment, at the creation, seeds bearing the same life (genes) were sown at the same time, and it does not matter at all if you see them as having changed to living things with different shapes.

If we interpret these seeds scattered on the earth scientifically, they germinated when conditions were right for their germination, and only those that took forms suited to their living environment developed and survived.

If we interpret this macroscopically, with the mind of nature, those that fell into the sea became seaweed, coral, sea anemones, those that fell into deep waters became shellfish and shrimp, and all lived together. The seeds scattered in marshes became cattails, some changed into catfish or eels, and in some cases the same seeds became frogs, turtles, or snakes. Things bearing the same genes became forest trees, others became the birds that live in the trees. At the same time that the

vegetation on earth increased and large trees grew in abundance, large animals such as tigers and elephants made their appearance. Microorganisms, plants, and animals are all genetic siblings, and once the stage setting of time and space were prepared, each appeared on the stage, dressed in different costumes, to dance in the drama of the birth of life on earth.

You may say that this is just a distorted dramatization of Darwin's theory of evolution. The big difference lies in the following point. According to the Darwinian theory of evolution, living things originated approximately ten million years ago in historical time, and during the time since then every species of living thing has, while evolving, appeared systematically in proper order, but because my theory ignores human time and takes the position of transcendent time and space, millions of years appear as a momentary flash of light. Consequently, the innumerable varieties of living things have not originated at different times in different places, and even if we assume that seeds of the same genetic material were sown at the same time, they have simply taken on different forms and become different species according to the conditions, appearing at different times and places.

Until now, the bioscientific world has been absorbed only in classifying and making distinctions. That is because they have thought that by analyzing every living thing in the biological world, they will understand the design of the natural world.

In the end, however, they have only separated and scattered every living thing, severing the connections among them. Their aim should be to link living things together to form one body and to clarify what is the true form of nature, and yet they have done the opposite, severing the links, and have been of use only in | dismantling and degrading the biological world that had existed in harmony.

If ornithologists and entomologists, plant taxonomists, anthropologists, and literary scholars all carry out their studies separately, they will understand a minute portion of nature well, but their view of nature as a whole will suffer. Herein lies the reason that the farther civilization and science advance, the greater is the destruction of nature.

Because the genes of all living things are the same, they are not unrelated to each other. They

are kin. While nature is a single, unified body, individual living things have the innate potential of transforming themselves into other beings, depending on the conditions.

This means that nature is one body, and that individuals are part of that body, but also that they are capable of becoming the whole. In other words, while a part is a part of the whole, a part also is the whole. We can say that, while human beings and insects are part of nature, they also stand for the whole of it.

If we wish to elucidate the whole aspect of the biological world on earth in the midst of nature, we do not need the methods of classification, dissection, and analysis, but rather a harmonious policy based on a comprehensive vision of nature.

If theories of biological evolution only trace the path of evolution starting from the classification of life forms or the specialized analysis of individual bodies, differentiating individuals in a specialized manner and shedding light on their origin and development, nothing will be resolved. The final goal of scholarly study ought to be the embracing of all things, of coexistence and mutual benefit, of turning the earth into a paradise.

I am not criticizing the evolutionary theories of Darwin and others simply because of some ideological disagreement. I am only examining them as one example of the illusions have invaded every field of study. It can be said of all fields of study that the resolution of the questions of time and space, which form the foundation of science and other areas of study, is the key to solving everything.

PART 3 WHAT IS THE FLOW OF TIME?

A. What Is the Flow of Time Scientists Believe In?

To be sure, scientists believe that they know the true character of time and have correctly understood and measured space, expanse, size, and distance. As proof of this, they point out that they have used their knowledge of time and space to launch rockets and successfully put satellites

in orbit. But, while the time and space understood by science form the basis of everyone's conceptual ideas and are fundamental tools for ensuring truth in the natural sciences, they give no indication of the true character of time and space in nature.

The time and space that people have observed and made judgments about are in every case time and space constructed on top of human concepts, and they only hold true in the human world. This means that the absolute time and space of nature, in other words, God's time, are without shape or form and cannot be expressed concretely. They are fundamentally different from the time used by humans.

The time of a single insect does not pass at the same rate as human time. One of its moments is infinite time. The space occupied by grass and trees may be quite small, but from their perspective, they are living in a boundless space. Scientists, who have not perceived this, have not noticed that by flying off, with great effort, into the macrocosm of space and spreading clouds of doubt, they have, on the contrary, closed human beings up in a microcosmic world. They have not noticed that even by their own hearth there is an infinite macrocosm and limitless time, and so they have become the wanderers of the universe, search for a safe place to live.

While there may be long and short in natural time, in God's eyes there is no fast or slow. While there may be large and small in natural space, there should, essentially, be no wide or narrow. Large and small, many and few are simply human illusions. Because the time and space that people have grasped are only the time and space acknowledged by science, and not absolute time and space, their value always changes, and people cannot rely on them.

We must realize that if we look at the concept of distance and the speed of the high-speed vehicles that are a mixed blessing to humans, from the perspective of cosmic time of billions of light years, they are nothing more than a momentary flash of light, and the momentary dream of a hermit is equal to billions of light years in time.

What is it, then, that people have called space and time, what have they used, what have they alternately delighted in and sorrowed over? For human beings, the previous ten years are not as precious as today, and they cannot replace it with tomorrow's time. That is to say, people have not

understood and controlled time and space. They are only being made fools of by relative ideas of time and space and made to dance on the stage of an empty time and space that are nothing more than illusions.

Fundamentally speaking, the concepts of time and space are not elements that participate directly in true human happiness. Rather, they are only useful in binding humans, making them too busy, and causing them to suffer. In trying to acquire time and space, people only lose them.

Discarding Time and Space

Time and space, in their true character, have no shape or form. Because they have no shape or form, people cannot discard or ignore them.

Even if we try to transcend time and space, it ends as futile talk, and we cannot realize such a thing.

The Buddha said that matter is void and void is matter, and time and space also are fundamentally the same and are empty,

All the concrete and mental images of this world also are essentially the same. Concrete images give rise to mental images, and the mental images return to concrete images. Concrete images are mental images and mental images are concrete images, and the question is how, even though we say everything is empty, do we discard them.

There are neither things that can be seen to exist in this world nor thoughts that can say they do not to. Sadly, even though people can say that all is vanity, they are confused by false appearances and deluded by fabrications, and they are unable to discard all concepts and return to the true form and nature of reality. I have come this far thinking that it must at least be possible to describe, even indirectly, this regrettable situation in words or pictures, but what has been the result?

The above drawing has transcended time and space. It has cut off and discarded time.

If you think about it, eternity is an instant, and an instant is eternity. Both the past and the future are contained within that one instant. Although I have understood that there is no time or

space, I have suffered the sorrows of a simple, foolish man and have uselessly dallied on the side roads. Although I wished to return to nature, I did not, and have passed my days in empty remorse. If I were able to return to nature, live in this moment, and die in this moment, then I too could live again. Come to think of it, returning to nature is the same as finding the life and death of one's lost self.

According to the Darwinian theory of evolution, new life forms have appeared in succession along with the flow time. The most difficult question is what is flow of time is. What is time?

The common sense understanding of the flow of time is that it is a continuous flow from past to present to future, like the flow of water.

As a concrete representation of time we have the clock, but a clock is only a needle going around above numbers on a flat surface, turning the flow of time into numbers.

Time, however, is not simply something that flows mechanically in a straight line in a fixed direction. In fact, we can think of time as flowing up and down, right and left, forward and backward. In other words, as time develops and expands, multifaceted and three-dimensional, past time is congealed within the instant of the present, and within this instant of time is concealed the eternity of the future. I have attempted to express and analyze this time grasped as three-dimensional movement in a diagram published in another volume. (*The Return to Nature* , "Killing Time") I attempted to grasp the three-dimensional movement of time, not movement on a plane.

If we make our idea of time something three-dimensional and diverse, rather than a straight line on a plane, then the basis of the theory of evolution becomes shaky. In other words, Darwin saw the diverse life forms originating in conformity with the flow of time, but what happens if we see this flow of time not as a straight line but as an expansion?

It is easy to liken the flow of time to the flow of a river. But even the phenomenon of water flowing in a river is difficult to grasp in its true aspect. When you stand on a riverbank and look at the water, you know the water is flowing, but when people in a boat on the river look at the water, and they are moving at the same speed as the water, then it appears that the riverbank is moving

upstream, rather than that the river water is flowing. As an Oriental Zen master once said, "The river does not flow. The bridge flows,"

We can say that human beings, who hold that nothing is so clear and simple as the questions of time and space, on the contrary do not understand anything. When we try changing our concepts of time and space, all question are completely changed.

The time and space that the leading scientists believe in are one and the same thing. That is to say, they appear to be different things, but because they are concepts established in a relative relationship, even if the outer form appears different, qualitatively they are the same thing.

If we try to express the relationship of time and space mathematically (see diagram), the starting point for both time and space is nothing, zero, a single point. According to the placement of this single point the concept of time is born, or the concept of space comes into being. Ultimately, time and space are the same thing and have the same content. In other words, they are one type of ultimate elemental particle.

There is time there is space

If there is no space there is no time

Both are the same mind and body. reverse sides in an interdependent relationship.

When the smallest space, a single point, is continued, it becomes a line. In a line, which is an aggregation of points, the concept of time, which continues from past to present to future, is born. If points accumulate over a flat surface, they become the concept of a plane. A three-dimensional aggregation becomes a sphere. We simply call the progress of the extension of lines made of points "time" and the result of expansion "space."

B. A Three-Dimensional Clock That Will Concretize Absolute Time

(1) Outline

The concept of time as something that exists *a priori* is recognized and accepted by everyone,

but its basis has not been made clear, and it is merely grasped as an ideal concept.

For example, when we speak of the "flow of time," we are only indicating the historical reality and development that runs continuously from past to present to future. This does not touch upon the essential nature of time.

Therefore, even the clock, which is a concrete expression of time, simply turns the idea of time into numbers on a flat surface. But, we ought to think of the true form of time not as something that stops at being an abstract idea but as the ultimate primeval form of the universe.

Just as the subatomic particles, which make up the microscopic world of matter, are made the quanta of bodies of physical motion, we can think of the true form of time as a *thing* that ought to be defined as a gaseous spiritual body of motion (a type of quantum),

If we express the true form of time in concrete form, it is not simply something that flows in a straight line in a fixed direction. It is three-dimensional movement, as in subatomic particles, that freely moves and changes, at the same time expanding and developing in all directions and also contracting and circulating. The concrete representation of the true form of time is the three-dimensional clock.

(2) The Structure of the Three-Dimensional Clock

In the three-dimensional time of past, present, and future, in an instant all things are made an image, and at the same time are expressed in numbers and words.

The core of the three-dimensional clock is composed of an artificial brain that stores all information about the earth and the human race. Following the comprehensive judgments of this sophisticated brain, three-dimensional images, numbers, and words are linked with time and function automatically.

To put it simply, we could call it a television clock. By means of the artificial brain, which contains the condensed knowledge of the people of the past, all information such as TV news broadcasts and radio commentary undergo a time slip and are broadcast in the fourth dimension.

(3) Uses

(a) We can know not only the historical reality that runs through past, present, and future, but

also all information about society and various fields of study through the images. In other words, we can use it as a living library.

(b) We can obtain instantaneously the indicators necessary for dealing with moment to moment changes in the global environment and human society. In other words, it will become the compass needed by space-age people who are pressed into lives that encompass great distances.

(c) Personally-owned three-dimensional clocks will even have been programmed with the owner's life history, abilities, and personality, and the clock's directions, based on a judgment capability that surpasses the individual's, can be used as a guide for daily living, a calendar, and a directory.

(d) Extremely large clocks could be made for national use, medium-size clocks for use in industry and schools, and small clocks for personal use. Also used as toys and for time travel.

(4) Operation of the Three-Dimensional Clock

(a) To manipulate time, causing it to shorten or lengthen.

(b) To designate space.

(c) To define images.

Example:

Aim - To investigate the history and circumstances of desertification on a global scale and its relation to human civilization and development.

Method - (a) Condense historical time of the past 10,000 years into one year and televise it over a period of one year.

(b) Select three places - the Sahara, Japan, and Mexico, capture 10,000 years of nature and human beings as images, and televise them simultaneously and three-dimensionally.

(c) In accordance with the aim. summarize and condense the images, televise them. and add commentary focusing on changes in nature and the human race.

(5) Effects

(a) If, through the use of the three-dimensional clock, it becomes apparent what sort of thing four-dimensional space is, then the futility of man's desires to go faster, farther, and higher, based

on the views of time and space of the lower dimensions held until now will be revealed, and we will be able to reform our own ideas.

(b) It is to be hoped that man's limited knowledge and talent will be disavowed, useless academic study will be eliminated, and conceptual games not directly related to human happiness and the production of false, valueless materials will be brought to a halt.

(c) With the perfection of a sophisticated computer that transcends human powers of intellectual judgment, false scientific truth will be negated, and false production activities, stock market gambling, and sports contests for the sake of prizes and record-breaking will probably die out on their own.

I think that through this conception of a three-dimensional clock, we will rethink man's proper way of life, and it will be demonstrated that this proper way of life is a natural way of life of knowing nothing and doing nothing in the fourth dimensional space that transcends the generally held concepts of time and space.

Ten years ago I paid a visit to the niece of Albert Einstein, near Central Park in New York City. When I asked her if Einstein thought that time and space really existed, she replied that although he saw time and space as relative, he probably could not give an answer about their reality.

That might well have been his answer. In any case, if I *were* to make a three-dimensional clock for him, he would probably immediately set about making a compass for a spaceship that travels at the speed of light and would set off by himself on a journey.

Would he manage the flow of time at will, returning to an ageless, deathless youth with a broad grin on his face, or would he fall into a time slip and return to earth like Rip Van Winkle? This is what I would like to say to him if I could meet him.

"If we see time and space as essentially one, unified thing, then the concepts of time and space will fuse and disappear. The position in which there is no view of time and space is the position of the absolute time and space of God.

In this position, human time and space are useless white elephants. Of course, your theory of relativity would go drifting off into space too. So what would you do? What would you do?"

Of course. I am just shouting into the wind here, and I am not Einstein, who has gone on to heaven, but wouldn't he acknowledge the truth as truth?

He said that the mass of matter is energy and created an enormous energy explosion by splitting the elements. Einstein's successors brushed aside his regrets and, realizing that if atoms could be split, they could also be fused, began to make hydrogen bombs through nuclear fusion. How could Einstein have gone on to heaven? He must still be drifting around in this world, burdened with responsibility for the aftermath of the tragedy he created.

I cannot speak for him, but I would like to say this. In response to his assertion that matter is energy, I would reply that space and time also are energy. There is something that travels faster than light. It is time.

The matter (appearance) and spirit (void) are all emptiness (the matter of transcendent time and space), and that emptiness (matter) is omniscient, omnipotent energy.

PART 4 A RELATIVITY THEORY OF THE UNIVERSE

Some years ago Fritjof Capra, a professor of atomic physics at the University of California who lectures on the science of the Tao, visited my hillside hut. He said that he was troubled that the subatomic particles appeared to be nothing but nonsense. There ought to be some fundamental principle, and he wanted to express that mathematically.

In searching for the fundamental principle of this world, he had found a hint in the Oriental Taoism of yin and yang, and he called it the science of the Tao, but he said that that alone would not solve the puzzle of this world.

He had likened the lively dance of the subatomic particles to the dance of the Indian god Shiva, but it was difficult to know what were the steps in the dance and the melody of the flute.

I learned about the concept of subatomic particles from him, so of course I had no words that could directly dispel his confusion. But I thought I might be able to give him a hint indirectly, so I

said the following.

"If we assume that the dance of Shiva is the dance of nature, then it is dance of no-mind (detachment). Wouldn't the sound of the flute be the sound of nature - the singing of the birds, the murmuring of the river, the sound of the wind? What need was there to make human music, turning the birds' songs into compositions and the cicada's cry into musical notes, let alone to represent them mathematically?

The steps in the dance of Shiva are part of the drama of nature, and the songs of the birds and the songs of humans are only a part of the great symphony called nature. By looking only at the instrument of a single, small performer and not looking at the conductor, you cannot fathom his mind.

It is fine to think that within the constant changes of all things and phenomena in nature there must be some corresponding fixed laws, but humans, with their shallow minds, cannot be satisfied until atomic physicists have expressed them mathematically, and the mind of the conductor is known only by God.

It is exactly the same with an artist, who cannot be content unless she captures the mind of nature on canvas. But the conductor of nature is God. It is all right to aim at knowing the mind of God, but to attempt to understand God with a human mind that does not follow the correct path is not so much arrogant as it is the source of error and misunderstanding.

To hope that by studying the world of the infinitesimal subatomic particles, we can arrive at the point of origin of nature and ascertain what God is, is like climbing trees in hopes of find fish.

The world of ultimate smallness is in a place that transcends ultimate smallness. The subatomic particles are simply the smallest things in contrast to the largest things in the relative world that can be observed by human beings. If we do not step outside relative largest and smallest, transcending the realm of science, we cannot enter the ultimate realm. No matter where it goes, the path of science is never in a position to know the ultimate point of origin of nature or to know God."

In conclusion, there is a limit to our ability to know nature with human knowledge. When I

said that I thought that was the source of his problem, Capra countered, saying, "I've written over ten books, but haven't you written books too, thinking knowledge was useful?"

"That's true, but haven't you written all your books believing they would be useful to people, I've written all mine thinking that books are not useful. That's the difference. It appears that both of us, from the West and the East. are investigating nature and desiring a return to nature, so we are able to meet here and shake hands. But on the point of affirming or negating human knowledge, we are moving in opposite directions, so we probably will not arrive at the same place in the end."

Capra looked disgruntled, so I said. "I don't think the path you are following is correct, but you still have nature in front of you. I am a man who turned his back on nature and have knowingly come this far on the path of-de gradation, so there is no hope ahead of me. If you make up your mind to return to nature, then you can turn back from this path at any time. But it will require some courage to abandon everything."

Capra said that after returning to the United States, he would like to turn a large tract of public land on the shore of San Francisco Bay into a natural farm. a paradise. Of course, this would be just one step in turning the earth into the Garden of Eden of ancient times. A number of his friends were already working there.

People should not become leaders. It is sufficient if they are able to assist God, who is the conductor. If only we can sing the praises of God like the skylarks and paint pictures of green on the earth like the grass and trees of the forest.

Science Races Out of Control, Killing God

Because of the rapid development of modern science, the Oriental tendency to live quietly, looking philosophically at the world as transitory, is disappearing, and a trend toward glorifying modern civilization and the idea that the material is almighty is sweeping the world.

Within the history of the development of Western science, the epoch-making discoveries that

have had the greatest influence on the human race are (1) the theory of biological evolution advanced in Darwin's *The Origin of Species* , (2) Newton's universal gravitation and Galileo's heliocentric theory, and (3) Einstein's relativity theory of the universe.

Darwin started with the birth and progress of human beings on earth and followed the traces of the origin and development of living things, determining thereupon that living things evolved. The idea that human beings also must develop became firmly rooted in people's minds.

Newton, seeing how an apple fell, discovered the law of universal gravitation and laid the foundation for atomic physics. Galileo understood that the earth was round and, when placed on trial by the Church, did not falter in expounding his theory that the earth moves. By thus denying the theory that the heavens moved around the earth, which was believed by the Christians, he dealt a death blow to the theory of creation by God.

By establishing the relativity theory of the universe, Einstein propelled the human race into the space age. To everyone's amazement, he concluded that there is no speed faster than that of light, overturned the commonly accepted belief that light always travels the shortest distance in a straight line. and proposed the new theory that, on this furiously turning globe, it is curved.

In addition, he said that light waves (infrared, ultraviolet, radiation, etc.), radio waves, and electromagnetic waves are all the same and that they travel through space at a fixed speed, regardless of their length, without ever accelerating. The development of space vehicles was launched from these special principles of relativity.

From his statement that the mass and momentum of matter are energy, the enormous energy contained within matter could be developed, and the launch of manmade satellites became possible.

However, this enormous energy that could be obtained by splitting the nucleus of the atom also became the tragedy of Einstein, for it led to the development of atomic explosions, and this was connected directly to the development of the atomic bomb.

Nature is not filed. It is a fluid, still, moving, unchanging. If there is no macrocosm, there is no microcosm.

It has been demonstrated that, just as a rubber balloon expands, the Milky Way is expanding at a rate of 0.5 km per second. Of course, at the limits of expansion it will scatter and vanish, just as a balloon will burst. Probably all that will remain will be white and black stars formed of masses of neutrons. The black stars will be at the ultimate state of contraction, in opposition to expansion. At the limits of density, the stars pull everything into them with the pull of super-gravity. Even the light that tries to escape will be drawn in, so they will be black stars with no light (black holes). In any case, the cosmos is said to be a fluid composed of life and death, which ceaselessly expands and contracts.

However, the world of the microscopic subatomic particles is the same. In other words, the nucleus of the atom is split, it expands and breaks into particles. Conversely, in nuclear fusion, there is contraction and condensation, and an explosion occurs, giving us the hydrogen bomb. In other words, the microscopic world of subatomic particles and the macroscopic universe are both the world of energy, of the same quality and quantity, and their workings are the same. Even though large and small exist within man's relative way of looking at things, if we look at things on a universal, macroscopic scale, there is not the slightest difference.

In the way that the basis of life in humans and other living beings are the same genetic material, the birth of the universe is the same. What is the meaning of the fact that the structure of the universe, which (to the extent that man can imagine) is a collection of a hundred billion islands of stars (galaxies) like the island that is the Milky Way, which is made up of a hundred billion stars, and that the human body and spirit (mind) and all things are all composed of subatomic particles?

The microcosmic world of subatomic particles and human beings have content of the same substance (quality) as the macrocosm (the cosmos). That being the case, setting out to explore the universe in a spaceship, just like microscopic exploration of the human body, is not the beginning of an understanding of the cosmos. It only means peering into one corner of multi-layered box called space. Man's expectation that if he understands the universe. God's world will unfold before him will, conversely, end in the exploration of an infinite hell. We may fly into space seeking

freedom, but there is no freedom there.

When we reflect on what it is that man has struggled so hard to understand and on what man has been able to learn and do, we are struck with amazement. There is no key for resolving man's confusion or the puzzle of this world.

No matter how much we search for the world of being, using the power of a science unable to break away from Western philosophy, which maintains the conviction (idle words) that being came from non-being, we cannot know the origin, birth, and development of being. In other words, from within a universe that exists, we cannot infer the outside of non-existence, and even if we analyze the infinitesimal subatomic particles, which are infinitely close to non-being, we cannot look into the world of being.

There is only one way, which is to stand outside being and non-being in the great nothingness that transcends religion and philosophy.

Even if Einstein realized that time and space are the same, when he spoke of time and space, they were only relative time and space seen from front and back, and it was different from a religious view of space that transcends time and space.

If his time and space had been based in a view of space that transcended time and space, then knowing and not knowing should have been the same in the end. He should have drawn the conclusion that human knowledge and action are useless. Of course, the atomic bomb should not have been made.

The highest wisdom is the knowledge of no-knowledge, and the highest action is no-action. In other words, no-knowledge is the will of Heaven, and if we follow the providence of Heaven, there is no-action.

In the end, in the eyes of God, the principle of relativity and the theories of subatomic particles of quantum physics are simply nonsense.

The arrival of the space age is nothing more than flying in the palm of Buddha's hand. It is nothing more than human beings playing with fire.

And yet, even if they understand this, why is it that people have welcomed the arrival of the

space age and are dreaming of the 21st century? They are trying to confirm that, with the development of science, they can obtain freedom, abundance, and eternal life.

Therefore, Einstein's sorrow was of no avail, and science has continued racing out of control, Einstein's successors realized that if there is atomic fission, there must be atomic fusion. They grasped the fact that the sun's light is a fusion reaction of hydrogen and were confident that if they could achieve nuclear fusion, they could possess the ultimate energy, like that of the sun.

They have moved from the theoretical level to the practical, and according to today's news, Japan, the U.S., the E.C., and Russia have inaugurated a plan for cooperative development of nuclear fusion. It is only a matter of time until the human race acquires the ultimate fire.

But the goal of the scientists and fake politicians, which has been visible now and then during the process of development from atomic explosion to atomic bomb and the hydrogen bomb is self-evident. It is nothing other than the domination of the world, masked in the glorified name of stimulating the economy.

What sorts of sacrifices are being made for the sake of nuclear development, and what is happening inside the spaceships that are launched using an enormous amount of energy? Is not the experience of the astronauts, spending long stretches of time weightless and in the dark, precisely the experience of a person in hell?

Many of the highly honored astronauts, who have been fortunate to return to earth, are said to have aged and to have experienced much physical wear and tear. They have also developed mental aberrations, and within the extreme nothingness of outer space, there are only two alternatives, to suffer split personalities or to become demons. The current situation is that people gain honor as pioneers in science, while turning a blind eye to experiments on humans, but is that really for the better? In order to create one hero or one new super-conductive material, all people and the whole world will wither and die.

Space development has become the dream of the human race for the 21st century, and plans are being made for space station hotels to be launched into space and for space cities where tens of thousands of people will live and work. But, this is only the final dream of a people who will be

forced to abandon the earth and flee to space hotels when places for disposal of strontium, a nuclear power waste product, disappear and the earth is polluted by radiation. These are truly castles in the air. Endeavoring to create a heaven in space, people will create a hell.

The reason for this is that in an unnatural, abnormal environment, all rhythms will be disrupted, and amidst lives of falseness and fabrication, there will be nothing at all to guarantee a truly human happiness. With the genes that are the basis of life thrown out of kilter and strange viruses developing, growth, not to mention producing happy children and grandchildren, will inevitably end as a dream of a dream.

What is certain is that if, in the future, a space station is built, it will become a lover in which leaders from the advanced nations will entrench themselves and rule the world.

With hydrogen bombs launched from there they will probably be able to control the people of the world, and to manipulate them at will with information produced by gigantic computers. Now the entire human race is being pressed to choose whether to become slaves of science or to return to God.

The leading scientists of the world are of the common opinion that the life of the earth, from the standpoint of the natural environment and of resources, will be decided in the next twenty or thirty years.

It is up to each of us to decide whether we will abandon the earth and place our hopes in a Noah's ark in space or turn the earth into the Garden of Eden it originally was.

It is up to you to either confirm the statement of scientists, that matter is energy, or to decide that do-nothing nature is sufficient.

CHAPTER 3 RESOLVING A WORLD OF CHAOS

Part 1: The Illness of the Earth and of People

A. Normality and Abnormality

It is said that a professor who did a basic study of the deserts of Iran and Iraq arrived at the conclusion that it would be wise to leave the deserts as they are. When I heard the reasons for his conclusion, I found his argument rather convincing. There is also a theory that it would be better to let Africa's deserts, population, and medical problems to take their course.

I believe that in order to solve these problems we must start by asking what is normal and what is abnormal. If we consider the desert to be a normal state, then it is better not to interfere, but if we see it as an abnormal phenomenon, then we have no choice but to intervene. Particularly, if nature has been laid waste and food has become scarce as a result of human activity, human beings must pay the price.

The problem is that if we investigate scientifically what is right or wrong, healthy or ill about the earth, and also the health and illness of human beings, we may appear to understand, but in fact the necessary, definite standards for making judgments do not exist.

Humans cannot even determine whether to consider the desert as a kind of cancer making the earth ill or a phenomenon of self-cleaning and change by which the earth achieves a balance. People see the population increase in Africa, China, and India as criminal, but who is it that has brought about the disappearance of vegetation on earth and food scarcity? Life on earth is meant to be born, and it appears naturally. In the past, present, and future, the path of nature is for nature and human beings to flourish and prosper together

Why must people deviate from such fundamental principles and suffer so? What have we done to alleviate the pain of the earth and the human race? Let us reflect on what has happened in regard to agriculture and medicine. There is no meaning in the advancement of medicine if the number of sick people increase. In nature there are diseases and insects but no damage from diseases and insects.

B. In Nature, There Is No Damage from Disease or Insects

During the fifty years I have watched the development of my natural farm, there have been no visible changes in the diseases and insects, but there has been almost no actual damage done to fruits, vegetables, or grains.

All the crops have grown vigorously and lived natural life spans, without withering and dying. That is the way the natural farm appears, but if you look closely, you can observe many insects on the fruit and many diseased leaves. Nevertheless, if looked at over an entire year's course, they make up no more than five percent, and that amount must be allocated to provide food for birds and insects.

All things on earth, plants and animals, live together and die together, and nothing disturbs that dispensation. So-called diseases and harmful insects are present, but disease and insect damage does not exist. What we need doctors to control is only the world of human beings.

Plants, people, butterflies, and dragonflies appear to be separate, individual living things, and each is a participant in nature, but they share the same mind and life. They are, as it were, a living thing with a single mind and body. To speak of things as beneficial insects, harmful insects, pathogenic bacteria, and injurious birds is like saying the right hand is good and the left bad. and it is nothing more than human prejudice. It is a mistake to see this as survival of the fittest. It is a constant cycle, in which all things participate in the same life and death, living together and dying together.

C. Eastern and Western Medicine

In Western medicine, every part of the body is first examined to determine which parts are ailing, and then the attempt is made to heal the bad areas. That is to say, using their discriminatory knowledge, people start with a localized, external treatment of symptoms. If you have a pain in your head. doctors will do a CAT scan, analyze the results, surgically remove the abnormal (as opposed to normal) portion, and try to repair the area as much as possible.

In the case of Oriental medicine, we start by looking at the eyes and skin coloring, listen to

what the person says. and check the person's complete mental and physical health. The main object is to infer the overall, internal health of the body.

The former starts with locating the abnormal area and healing it, with the intent of achieving the health of the entire body. The latter examines the overall health of mind and body and then treats the pressure points and other vital spots that control the whole body.

It is thought that in the end both will be effective in healing a disease, but in fact, they move in exactly opposite directions, so depending on how they are applied, there is a great difference. They may also be divided into two poles, one with the goal of healing sickness and the other with the goal of maintaining health.

For example, when narrow, specialized medicine develops and radicalizes, the search for answers to certain questions - what gives life to the whole body and mind of a human being, and what sort of health is maintained based on what fundamental principles (instincts, etc.) - is put off. In extreme cases, modern Western medicine is in danger of putting the human body ahead of the human spirit. The development of specialized medicine and the rapid advance of localized treatment have revealed the faults of analytical science, and their distance from the natural form of mind and body is a cause for concern. It seems that the separation and fragmentation of the individual's mind and body is the starting point for emotional anxiety among people today.

At the very least, with the extreme rapidity of the advance of physical medicine, the medicine of the spirit must be neglected, and there is no search for natural form or the perfection of comprehensive treatment.

On the other hand. Oriental medicine grasps philosophically man's natural form and the degree of health of the mind and body and asks how to preserve that degree of health. However, the healthy body that is the ultimate goal must be based in the natural form, but in contemporary society it is becoming increasingly difficult to maintain that natural form.

In order sustain the natural form of mind and body, Oriental medicine must go so far as to ask how people should relate to nature and how they should live.

The human body is not simply a collection of parts. The body as a whole is a macrocosm, and

the parts are microcosms. If you do not understand the whole, you cannot heal a part, and if you do not understand a part completely, you also do not understand the whole.

The philosophies that are the original starting points for Eastern and Western medicines are different, as are their methods. One has taken the path of inductive reasoning, the other of deductive reasoning, but I think the time has come when a medicine that is not a compromise between the two, but is comprehensive, transcending the whole and the parts, must be born.

The source of all disease began when man separated himself from nature. We have entered an age in which, along with the natural world being lost and the environment degraded, the entire human race is weakening and in danger of mental disintegration.

There is no meaning in the advance of medicine, if the number of patients increases and new diseases continue to appear.

What Do People Live By?

Hasn't human society, which stands too far isolated from nature, given excessive trust to physicians regarding the questions of life and death? It is not humans who truly control human life. It is nature. We should at least entrust it to nature.

When we ask what life is, what the force that moves life is, for what purpose human beings live, we must ask the maker of nature and humans. But the heavens and the earth say nothing.

An unborn child does not know its mother, nor can a mother tell her unborn child anything. The maker and the made are one body. But even if heaven has no voice, there is proof on earth.

It is said that if man lives instinctually, he will be happy. Because he is happy, he is able to live.

The wellspring of life is joy. The great love that gushes forth from nature supports life. Life without love, life without joy is death itself. An unpleasant natural environment, an unhappy life is the same as an unnatural, ailing body, a corpse. It is all well and good to do research on sick bodies, but we must also tenaciously pursue the question of what a healthy body is.

Recently there has been a great clamor over the question of brain death. Clearly this is a

difficult problem that involves the question of the biological life and death of humans, as well as moral questions. It is made even more complicated by the involvement of religious views of life and death, Religious leaders have brought up the idea of a soul that exists outside this world, without there being any proof of its existence, and have out stepped their authority by entering the field of science, but physicians, by being so attached to the importance of life that they are endeavoring to extend biological life even if it has no joy and by blurring the boundary between life and death, are in danger of departing from the realm of science.

Physicians and nurses must be guides to life and priests who impart the last words that lead the way into death. In other words, they must not simply specialize in healing sickness and giving advice on pain and pleasure, life and death. There are also times when they must give people the joy of living truthfully and must pronounce the sentence of parting and death. We could say that is the ultimate medical treatment.

Therefore, it must become clear to each person, where man's true joy comes from, what the source of his sorrows are, and how they should be dealt with.

Let me give two or three examples.

When I asked a Japanese youth where he found happiness, he said. "I'm happy if my life is made worthwhile by fine clothing and food and a nice place to live, a car, leisure time, and foreign travel." A youth from Nepal said, "From *The One-Straw Revolution* I learned that joy is in nature, and that we can make that great joy our own by shrinking, as much as possible, the egos that we, a part of nature, possess. I am firmly convinced of this." One was trying to find joy in the midst of human society, the other in the midst of nature.

I have said that true happiness is not to be found in the world of human knowledge and human action. Naturally, if the normal, natural mind disappears, then normal happiness disappears in humans, and the true truth, good, and beauty also disappear. Medical treatment must not be at the mercy of false joy and sadness.

I went to Africa in search of the starting point of nature, but I have the feeling that what I saw there was the starting point of medicine. What was it I saw in the people and the animals living on

the verge of death and searching for salvation in the midst of a desert?

In the desert you can hear the sound of the wind and the sand. Scorpions and mice hide in the sand. There is only a sad, dry sound. It is a whispering, soundless music. The dry braying of a donkey I heard in the savanna still lingers in my ears. Wailing and squealing, it was the cry of a baby on the verge of death. The desert is searching for salvation.

I feel that I saw the startling point of medical treatment in a hospital, if you could call it that, in a desert camp for hundreds of thousands of Ethiopian refugees. Palm leaves had been placed atop several weak, spindly poles, providing a little shade, and that was the hospital.

There was a yardstick and a scale. A person was considered ill when his or her height was too great in proportion to weight. The patient would be given a cup of milk containing a drop of nutritional supplement. Every morning two or three hundred people gathered, but about twenty or thirty children were really sick, and the rest of the people were relatives attending them. Their goal was to be one of those who received a cup of milk that day. When the hand holding the scale became numb and dropped it, everyone burst out laughing. The children who received no milk cried and whimpered. They did not cry because they were sick, but because they had been examined and judged to be healthy. Rather than a hospital scene, the prevailing atmosphere suggested that the people had come to enjoy watching a game of chance. Salvation was found in the smiling faces of one doctor and several young nurses.

The smiles of the nurses seemed to give people the courage to live. The eyes of the children jumping and playing about the area were beautiful and shining. These children of a country with no writing and no money were innocent and open-hearted. (I've heard that a writing system was developed twelve years ago.)

With the children, I planted vegetable seeds in the desert gravel around the hospital. Of course, the children understood quite well how wonderful it would be if the area turned a rich green, and vegetables grew up beneath banana and papaya trees, so they gleefully scattered the seeds far and wide.

The ultimate hospital is a place where body and spirit are free and unrestrained. Its mission is to

restore the wounded natural body and natural mind, which have suffered bitterly, and to awaken people to the great joy nature has at its source.

To save the desert of human beings and to revegetate the desert are the same thing. Now the deserts of Africa are looking for a green standard-bearer.

D. Life and Death Human Life and Death - My View of Life and Death

Fifty-five years ago, when I was five-five and I realized that human knowledge is impossible, my views of life and death changed completely. People don't know a single thing. I declared that people knew neither the true nature of life or of death.

Scientific Life

People think that, with the development of the biosciences, we know more than enough! about human life and death. But it is clear that scientific truth cannot be absolute truth, and it always ends up as narrow, incomplete micro-judgments.

As our understanding of human life through human discriminative knowledge has deepened, the outlook on human life and death appears to have been settled, but actually the seeds of confusion have increased, and we are probably just getting farther and farther away from the samurai's "discovery of death" described in *Hagakure*.

The reason for this is that scientists are under the illusion that if they study "living bodies," they will understand the basis of life and will have a better understanding of the problem of death, but we do not understand life by looking at life. To put it bluntly, we could say that is no connection between the outlook on life and death and biological life and death. The outlook on life and death is a problem of the mind. Of course, the mind originates in the body. so it seems natural to think that by exploring the body and controlling it, we can control the workings of the

mind and can solve the problem of death, but the mind of modern man is already functioning in some place far removed from the human body.

We can fairly say that modern man has lost his mind. That is because he has already lost the natural mindlessness — original, pure, transcendental — that he was born with. Now he possesses a mind polluted by human knowledge. With this clouded mind and understanding, we cannot find man's natural, essential life from observations of biological life.

The Age of the Liberation of Life

Today biologists are convinced that the basis of life is in the microscopic cells and are totally absorbed in investigating them. If we look from a point of view that transcends time and space, there are neither macro nor micro. The basis of life is not in the cells, DNA, or RNA. It is not matter that was born from among the stars of the universe or sucked up in a black hole.

True life is not something that natural scientists can search out from the natural world that is their object of study. Rather, it is in a world that transcends the human ideas of life and death and the physical matter that set these ideas going.

Therefore, in investigating life, people must first escape from concepts of life based on human knowledge, which have determined what life and death are.

Biologists are confident that, by studying the process of evolution and development of living things, they can elucidate the structure of the universe and the birth of life, but what they are studying is not the true form of life. They are only following after the footsteps and the shadow cast by life.

To know what sort of drama the *life of God* plays on the stage of nature, delighting in the joy of life, we must study life. In actuality, biologists neither lend an ear to the symphony performed by God nor are amazed by the beauty of God's dance on the brilliant stage, and by investigating only the discarded, broken musical instruments and stage settings, they will barely catch a glimpse of the temporary forms of life.

We cannot measure the value of the functioning of life on a scale of time, long or short. We cannot grasp the joy and happiness overflowing from life by the relative concepts of time and space.

If we take the true form of life to be God, then biologists, with the intention of studying life, are simply dissecting the framework of life, or its container.

Geneticists now know that the DNA and RNA in the nuclei of cells are the mechanisms for transmitting genetic information, and people are confident that by elucidating them, they can solve the puzzle of life and grasp its true form. However, scientists are not involved in solving the puzzle of life. They are only useful in interfering with the free activity of life and in throwing the life of nature into confusion. We should not consider DNA to be an apparatus for creating and sending information. It is nothing more than a temporary base that serves to catch information about life from God and transmit it to the next information mechanism.

Just as it is said that scientists learned the true form of electricity in nature when they invented electric trains and became able to communicate through electric wires, when they have discovered the means for transmitting genetic material, have become able to rearrange genes at will, and to create various different life forms, then they will probably boast that they are able to create and regulate life just as they wish.

If they insert human genes among monkey genes, insert mouse genes among monkey genes, create an intermediary animal between humans and monkeys, and give mouse characteristics to monkeys, people will be able to say that they can toy with the life of living things, but that will not mean that they know the true life of human beings or monkeys.

The joy of human life is not understood by apes, there is no reason for a human to recognize an ape as his child because it resembles him, and a monkey is not likely to be pleased to squeak like a mouse. Scientists are under an absurd illusion about the true meaning and value of life.

The value of life does not lie in the fact that humans have life. Its value first becomes manifest when it is made the most of and lived nobly. It is a question of whether or not life is lived to the fullest.

Just as the value of a human being does not change, whether she has two limbs, six limbs, or eight limbs, to think that the length of life or mutations in genes are directly related to the dignity of life is nothing more than the arbitrary decision of scientists.

Because scientists believe that the superiority and inferiority of human inherited characters is controlled by the superiority and inferiority of the genetic material, they have high hopes for technologies such as genetic rearrangement, but that is on the same level as people being concerned about differences in skin color or the number and length of limbs, and therefore putting on make-up and having plastic surgery.

In the life of nature itself there are no differences of superior and inferior, and the judgment of human characters as superior and inferior, or good and bad, are all judgments made from the human point of view. For humans to dabble with the genetic material of nature is no different from a monkey amusing itself by putting on make-up and impersonating humans.

Therefore, no matter how much scientists intend to create excellent new forms of life, this is human smugness, and it cannot become the superior life that is universally available in nature. The essential thing is that scientists have not come anywhere close to touching the true form of life. They are not investigating life and settling the questions of life and death.

Scientists seem to play with biological life and enjoy daydreams at will, but their arbitrary prejudices are throwing man's view of life and death into disorder and causing changes in the normal life of nature. The birth of completely new, abnormal microorganisms also are a direct danger to the entire human race. Life and the outlook on life and death are two different questions.

The Fear of Death and Earthly Passions

The biological life that scientists are looking at is only the life of the self, which is already attached to worldly passions, has become a slave of selfishness and egotism, and is afraid of death. Therefore, no matter how much light you shed on life, you cannot establish an outlook on human life and death. Ideas, drawn by the ego, of a life that is only a shell of the real life are just a

clamor about living and dying.

The fear of death, which is the most important question in the outlook on life and death, is not so much a fear of the death of the body as a fear of the abandonment of the attachment to wealth and fame and worldly desires that are a part of life. The degree of one's fear of death is equal to the depth of one's worldly passions.

Thus, how can we ever die if we do not resolve our passions? But we find that the content of these passions are hardly anything more than man's futile fantasies and illusions. It is the same as when a person, believing he possesses a treasure in gold, silver, and jewels, opens the box to find only worthless things, bits of glass and rubble.

I have said that matter has no value. It simply appears that matter has value when people have created the conditions for value. We can say that there is nothing in this world that has value. Value is simply born and disappears according to the conditions.

Human knowledge is essentially unknowable. If we have unenlightened knowledge, (hen not only the wealth produced by human knowledge and action but also the value of all things will vanish.

In this world there originally were no superior and inferior, strong and weak, wise and foolish. If we understand the truth of the fact that the concepts of beauty and ugliness, love and hate, good and evil, right and wrong, far and near. and slow and fast are fantasies painted by human knowledge, then the seeds of human will disappear like the morning dew.

There is essentially nothing for human beings to do. To live and die, with no regrets, in doing nothing nature is the right way to live.

There is nothing for people to gain and nothing for them to lose. As long as people were in their *natural form* . they could die peacefully any time and anywhere, like dogs and cats, like the withering of grass and trees.

Physicians are in a position to have direct contact with the dignity of life. but their final mission should be to provide their patients with a *natural death* . in other words, an easy death.

We must avoid inviting an unnatural death by longing to much for the extension of life,

inviting a result that leaves us moaning hopelessly on our sickbeds. The fact that we do so many useless things is an indication of the depth of man's confusion, not something he should be proud of.

There is nothing that surpasses playing the role of a good guide on the journey of life, so that without doing anything, we can be born, live quietly, and die peacefully. If we live aimlessly, it will, on the contrary, form the seeds of suffering. The value of life and death is up to the individual. Life and death are not for everyone to meddle in or make demands of.

The final point in the question of death is not the death of the body, but rather how the life in the hearts of the people watching over the dying can provide the least difficult, most peaceful death, in other words, so that the person may be reborn in heaven.

If a person dies naturally, with ease, then not only is that person at ease, but the minds of those around him are at peace, and there will be no regrets in the future. In fact, the one that announces the coming of death and delivers the final words is not a priest or a physician, but nature. We should entrust everything to nature. The only thing people must do is to decide how they can achieve a death that complies with the true path of nature.

The Mind and Spirit of Life and Death

It has been concluded that the life and death of the other living things in nature is the life and death of the flesh, but the difficult thing is that the question of the life and death of human beings does not end with death but continues after it. There are so many causes for concern — whether people's souls continue after death, whether there is another world where spirits go after death, whether people are born again — that people can hardly manage to die.

We may think we understand what is the mind referred to when it said that even if the body dies, the mind does not. and know when and where it originated, but we don't understand anything. And furthermore, what is the reality of the thing imagined to be a spirit or soul?

Much of the time we cannot even establish where the human mind is, that is in such confusion

about life and death.

People have said that the mind is lodged in the head, the chest, the abdomen, and even in the soles of the feet. Even if we say it is the mental activity that occurs in the brain, that does not elucidate its true character.

Recently there has been much progress in psychology in trying to elucidate scientifically the true nature of things such as the mind, soul, or spirit. It seems that many people are hoping that, as they close in on the workings of the mind and the source of that which is latent within images, if all goes well they will also shed light on the form of God.

But in the end, psychology and the science of the mind never leave the realm of natural science, and all they do is deepen the confusion, in the gap between the concrete and the mental image. As a result, they play a dirty trick, simply saying they cannot turn God into language and that it is difficult to express clearly the true forms of spirits, souls, and so on. They just hide behind a veil of secrecy and act as if they were actually doing something.

Of course, I do not wish to deny the value of the science of the mind in elucidating and developing therapies for the mental illnesses that spring from the confusion of the mind. I simply want to point out the limits of the realm of science. just as we cannot take the measure of knowledge with knowledge, we cannot know the mind with the mind. In conclusion, then, scientists of the mind and of life are not in a position to prove the existence of souls or spirits, let alone of God.

The only standpoint from which we can elucidate the true mind is that of *au* (nothingness).

The Standpoint of *Mu*

What is the standpoint of *Mu*? It is the standpoint of people before they become aware of themselves. It is the standpoint preceding the origin of a mind such as Descartes', when he said, "I think, therefore I am."

Only those who stand in a position prior to "I think, therefore I am" can grasp and elucidate the

true nature of true mind. In other words, only the mindless mind can know the mind.

The "I" Descartes referred to is nothing more than the ego. It is not the pure, spotless, transcendental mind of nothingness. It is nothing more than the working of human knowledge, one form of mental activity, that has already been polluted by the basic concepts of time and space.

The human mind, and also what are called soul or spirit, have never escaped the realm of *ideas* created by a *self-portrait* drawn by human knowledge. They are not things that truly exist in the real world. Watching a drama in our dreams, written and acted by ourselves, we become our own minds.

The ultimate goal of both the efforts of Western philosophers, who are closing in on the world of individual self or transcendent self, and the world of no-mind, which is the goal of religious people in the East, is to elucidate the mind that exists in nothingness. It is to grasp and possess the mind of true self, in other words, the mind of God.

However, the methods modern man intends to use are neither the path of transcendent self and do-nothing nature nor the path of return to God and nature. They are traveling in exactly the opposite direction. They might as well climb out on a limb to catch the moon reflected in the water below.

The Fall into the Relative World

Since primitive man first ate the fruit of the tree of knowledge and came to possess discriminative knowledge, the human race has lost its original mind and has fallen to the state of lost sheep.

Since people have forgotten the judgment made by absolute mind and have come to depend on relative thought and judgment, this world has appeared to be a relative world, and they have been torn between alternative judgments regarding all things and occurrences in the world.

In other words, when people's thought divided the original true mind, this original mind that

was one became two, people came to have two ways of looking at things, in order to clarify the two, the mind raised four questions, and as this went on, people gradually turned into lost sheep. Relative thought and discernment do not bring us closer to the true answers, through their judgment of things. Rather, they simply increase the causes of suffering.

The only method for clarifying and resolving things is to return to the one mind that lies at the source of all things, the mind of no-self. There is no other way. If they do not understand this, people cannot know anything or do anything. That is to say, people have neither known anything nor done anything. But it can also be said that there is no one who understands this fact.

People think they understand life and death, but they do not understand true life and death. In essence, there are not two sides, life and death, to human life. The one true life is divided by human knowledge into the two sides of life and death, and life is only life in relation to death. They can only see one side at a time and therefore cannot see the whole. They are only under the illusion that they have grasped the fundamental life.

It is the same as the way that people, once they have decided that green is not red or any other color, are unable to know what the real green within nature is.

It is said that people cannot experience the world of life after death, so they cannot understand it. but they can know this world. Philosophically speaking, however, if there is no back, there is no front, and if we do not know about death, it is impossible to talk about life.

If we do not know the true nature of death, then all the concepts surrounding life, life span, death, and the hereafter are useless. The person who truly knows the true nature of life also knows the true nature of death.

People believe that they have a certain life span, and the end of that life span is death, and they think that they can infer the true nature of life from the length of life span. Life span, the length of time of life, is accepted as one concept of time and space.

Although people know that they cannot directly experience human time and space, they think they can adequately understand the idea of time and space grasped as life span. But without understanding the true aspect of time and space, they can hardly understand the true aspect of life

span. The truth is that the ideas of time and space born of the human relative view do not actually exist.

The true nature of time and space is the infinite time and space that transcend the concepts of time and space. Human life is one part of eternal life, and we would be better off without the words "life span."

Plants put out new leaves in spring, grow, bear fruit in autumn, and wither and die in winter. but their seeds come to life the following spring. Among humans, genetic material is handed down from parent to child to grandchild, so we should be able to think of them as living in eternal life.

People have distinguished life and death, calculated life's length, and considered life and death to be the source of joy and sorrow, love and hate, and the pain of separation, and thus man's view of life and death has become even more confused, but this view of life and death is nothing more than a conceptual idea, and therefore all the bewilderment is just a delusion human beings have built on their misconception of life and death.

Without any confirmation whatsoever, people are at the mercy of souls and spirits, and the hereafter is a hell. Forty years ago I wrote about this world and the hereafter in *Mu I*.

This World and the World after Death

People suffer over life and are perplexed about death. Having recognized this world, they then associate it with the hereafter, and thus the suffering over life and death spreads throughout the world, transcending dimensions. But, just as life and death are one and the same thing, this world and the world after death also are essentially one.

If we devote ourselves wholeheartedly to life, death disappears, and if we know the true aspect of the world, then the world after death will vanish. If we look with the eyes of God (no-mind), there is neither life nor death, this world nor a hereafter. All there is is the life of this world.

This world and the hereafter, both of which people believe they know. are in essence this world. The hereafter that people talk about does not exist.

That world is the same as this world, and neither the ghosts and spirits thought to roam there nor hell exist. They are all a part of this world and are only conceptual fantasies that never escape the realm of human images.

If we know the true aspect of this world, then the true aspect of that world also becomes clear to us, and there is nothing that can even be called a hereafter. The Buddha, for example, made no attempt to discuss something that does not exist. But even though we understand that the hereafter does not exist, man's bewilderment expands infinitely, with no sign of stopping.

For example, if people have in mind the concept of a "non-discriminative knowledge" that transcends discriminative knowledge, they become confused. They can also become perplexed when they imagine a third, absolute space that transcends human understanding or a fourth dimensional world. If there is a world that transcends the discretion of human knowledge, a real universe, then the argument that there is an unreal world is also possible. Furthermore, we can set up a world of absolute nothingness that transcends time and space and have God live there. That is the eternal hell of this world,

Nevertheless, none of these escapes the framework of relative thought. They are nothing more than abstract notions built up of judgments and circular reasoning based on human knowledge. Even if they were to be reflections of the true aspect, non-discriminative knowledge will not be born from concepts, we will not receive God's help from a picture we have drawn, and no real wisdom will be born. People have created a world of ghosts called the hereafter and are living in it, and thus are turning into ghosts and dying in this world. We would have to say this is a hallucination of life and death.

The Existence of God

Human life begins with birth and ends with death. For people to establish an outlook on life and death, which are the most important problems confronting them, they must somehow grasp God. If they do not establish what God is, they cannot establish an outlook on life and death.

Therefore, although I know I cannot express it in words, I will dare to take up the topic of God now. To put it briefly, the God I believe I have come to know is nature. The mountains, rivers, grass, and trees of nature are all God.

When we return to a self-less self and simply gaze at and cast ourselves into the bosom of mindless nature, then suddenly the full aspect of God will be disclosed to our eyes. God, nature, and man are one body. If we become awakened to the selfless self, the idea of self and other will disappear, the self once known will not exist, others also will not exist, nature will not exist, and everything in this world will be empty.

When the value of things vanished and I realized that people have no knowledge and things have no names. I understood for the first time that this world is paradise. I saw that everything in the natural world was bursting with life, singing with delight and dancing for joy. God was a beautiful flower, a joyful puppy, a bird, true people. I too sang and danced with delight at the proud realization that I was a child of God. a child of the Buddha.

When I think back on it now I realize that it was not a matter of my searching after and seeing God through my own efforts. Rather, by accident and good fortune, I simply recalled the mind of God that I had had as a child.

It appears that all people, although they have been born as the children of God. forget and turn their backs on God and willfully try to create their own lives. But no matter how much they search for freedom, just as they can never live outside the universe, they can never escape from the hand of God. They ought to long, in the end, to return to the bosom of God and to end their lives peacefully.

The Human Race's View of Life and Death

Although I have talked about do-nothing nature, for the past fifty-five years my life has actually been spent in vacillation, as I wandered in confusion along the path of a common mortal bound by his earthly passions.

Under the name of the development of modern civilization, the human race has revolted against God and is racing madly toward the destruction of nature, so now, in particular, we must rectify people's view of life and death.

Now the human race is rushing wildly to establish modern civilization on the foundation of a Hegelian theory of dialectical development, to expand and strengthen it. This path has been a direct road in opposition to nature ever since primitive man ate the fruit of the tree of knowledge and was exiled from God.

Human discriminative knowledge has ceaselessly gone on discriminating, analyzing, dividing, dissecting, scattering, and expanding, and in the end can only fall to destruction and extinction.

Now, no matter how hard the scientists of the world preach about the crisis of the 21st century, to the human race, drunk on the wine of modern civilization and its vanities, their words are like water off a duck's back. It seems that man may no longer be able to turn back onto the road that returns to nature.

For the last fifty years, I have advocated, as a replacement for the materialistic dialectic theory of development, which is based on relative thought, a spiritual dharma-wheel theory of development, but no one has given it a second thought. Perhaps my ideas will disappear like a dream,

The fate of nature on this earth, the survival or extinction of the human race, the lives of the children of God, Jesus and Mohammed, all are part of one fundamental problem. If we could resolve one problem of the human heart, then all could be solved, forever, but this cannot be accomplished.

As Jesus hung on the cross, he cried out. "My God, why have you forsaken me?" He must have been speaking for the human race.

Even now I cannot banish from my ears the dry braying of a donkey, like a baby's scream, that I heard in the African savanna. It seemed to coincide with the cry of the dying earth.

The earth must originally have been a paradise. I saw the proof of this in the Philippines, which under present conditions could be called a hell. I felt that my desire for the recovery of those

islands would simply not allow me to die. I think this experience taught me that not wanting to die can itself become a purpose for living sufficient to keep us alive.

Not wanting to die also means not wanting to cause death. I wonder if I really love life? It seems I will go on suffering the trials of a mediocre man forever.

Ripe persimmon

Picking it, I let it fall

Buckwheat flowers

Bright harvest moon

I could only gaze at it

In open-mouthed wonder

Part 2 Economic Criticism

Even if our goal is to protect forests, revegetate the desert, and revolutionize agriculture, if we do not resolve the fundamental problems of economics and people's way of living, we cannot do anything. I would like to talk here about what economics is.

The first thing that came to mind when I heard the news of the collapse of communism was the question of what would happen to the economies of the capitalist countries. The only difference in the fundamental doctrines of capitalism and communism is that one takes production and consumption based on free competition as its basic principle and the other emphasizes production and distribution on an equal and impartial basis.

However, freedom and equality cannot walk along completely separate from each other. Even if we speak of freedom, one cannot willfully act with unlimited freedom, and not everything can be bound by equality. In other words, freedom and equality do not, properly speaking, exist separately. They exist in the mutual relationship of warp and weft. There is little difference in the

content of the two

The only difference is in the bag things are put in, in other words, the fabric. The problem lies in the way the fabric is woven. If the warp is too strong, or the weft look weak, the fabric will easily tear. In the case of the recent economic collapse of the communist countries, the weft formed by the communist countries may simply have been dazzled by the colorfulness of the capitalist warp and disintegrated. If the weft threads break, the fabric cannot exist with warp threads alone. The balance of the world economy has collapsed, and there is a danger that both sides will fall together.

The reason for this is that the economies of the communist and socialist countries and the economies of the democratic, capitalist countries are at base the same, and their only difference is that they form the right and left pans of a scale.

Generally, the struggle is over whether the left or the right will prevail, whether equality will be given priority or free competition will be accepted. But the most important thing is the final goal of the economies, what is the standard that determines the position of the fulcrum of the scale.

During this century, hasn't every country and every economy lost sight of the most important thing, the true goal of the economy. The goal has been polluted with the idea that the material is almighty, and people have felt that it is sufficient if they stimulate the economy by creating a variety of products, no matter what they are, and increasing production, stock, exchange, and distribution.

The fundamental defect in the economies of this century is that everything starts with a belief that value is found in material things, but properly speaking, there is no value in *things*. The idea that the material is almighty is based on the belief that human joy and happiness come from things.

A. There Is No Value in Things

I have often said that value does not lie in things, but that when people create the conditions that make things necessary, then value first arises in those things. Therefore, if people make conditions and environments that do not make those things necessary, the things, no matter what they are, will be valueless. Cars are not needed by people who are not in a hurry.

As a result, we should not think that the value of things originates in them. Their value is simply the product of man's idealistic fantasies. In other words, the sense of value of things changes according to person, time and place, and cannot be fixed. Therefore, it is unreliable. I would go so far as to say that economies that aim at the production and consumption of false things are basically meaningless.

The collapse of the economies of the communist countries, and of the capitalist countries as well, begins when people realize that the production of material things for people is fundamentally meaningless. People are, in essence, able to live in do-nothing nature.

We have been taught that the labor of the people who produce things is sacred, but Jesus said, "Why are men not satisfied, as are the birds, with what they can glean? Why do they earn their bread by the sweat of their brows and suffer?" From God's viewpoint, the labor born of man's greed is something to be condemned.

I still remember the words of the Ethiopian chief who at first refused when I told him to sow seeds in the desert. "Are you asking me to become a farmer? To be attached to the soil and to accumulate things are the acts of a degraded man." This proud nomad's words are an incisive criticism of modern man.

It might be acceptable if people were producing things for the benefit of nature or to please God, but people can only think about people. Most of the things modern man works hard to produce are meant to support modern civilization. They are anti-nature materials directly connected with the destruction of nature. Moreover, the joy imparted by these products is not useful in inviting true human happiness. While devoting themselves to the development and production of things used in the false pleasure industries and of the instruments of murder, it is utterly impossible to discover the significance of human life. On the contrary, when we understand

labor to be service to a privileged class or to Satan, there is nothing sacred about it. It is only empty and futile.

Taking advantage of the development of science, modern industry has striven to specialize in every way and has prided itself on the high rate of economic growth, but this has, on the contrary, added an ecological burden that will oppress the human race in the 21st century. The time has come for us to fundamentally rethink the meaning of economic growth and the expansion of the GNP.

For the past 3,000 years the human race has been under the illusion that it could obtain a false, fabricated happiness from material production, without realizing the 'fundamental principle that there is no value in things. People have come this far chasing such a fantasy, but now the fantasy is about to shatter.

The reason for the decline in the will to work among communists is that they have awakened to the true nature of labor more quickly than the capitalists.

Human labor is work in service to God, or to put it more concretely, it is work done for the benefit of nature, which was created by God. There is no other work than this. The path that people should follow is to fulfill their responsibility as part of nature, based on the providence of nature.

If we consider the fundamental cause of the failure of economics to be the meaninglessness of production, then that in itself is a deathblow, but human misunderstanding is also guilty of grave errors in the mechanisms for distribution of products.

The distribution of products ought properly to follow the path of nature, but people have willfully and selfishly plundered and harvested, with no regard for anything else.

All the living things on earth have received every thing on earth impartially from Heaven. The damage suffered by other living things at the hands of the arrogant human race has reached the point where it cannot be undone.

Man's selfish destruction, which goes under the name of production, and plunder, which goes under the name of consumption, have reached the point of collapse with the distribution

revolution accomplished by the commercial firms.

During the age of bartering, the smallest necessary amounts of things were weighed against each other, their values were determined, and they were exchanged. Calculation based on human knowledge was unnecessary. There was

also no thought of storing foods that easily spoiled. The life of that day was everything, and people lived forever in the same place.

Things changed completely when we entered the age of a money economy, in which money represents the value of things. This aroused the desire to hoard and increase money. The standards for determining the value of things also changed completely. Rather than the true value of the thing itself the distribution system and the money value of the things increased in importance. The prices of things came to be decided based on what could most easily be turned into large amounts of paper currency.

It is only natural that, when it become more economically profitable to deal in small diamonds weighing a gram each, rather than large pumpkins that will support the lives of hundreds of people, no one will grow pumpkins anymore.

Once the distribution system is under the control of the giant commercial firms, then the price structure will become out of balance.

When I visited Europe, I found that fruit was ridiculously expensive in Vienna, Austria. When I asked about this, I was told that the Italian farmers were refusing to grow fruit. The next day, when I went on to Italy. I saw a bulldozer crushing mountains of beautiful peaches in an orchard south of Milan. When I asked the farmer why, he said the people in Austria would not buy them (in fact. the price was too high), causing the price to drop, so he was following the orders of the agricultural cooperative to stop shipment and adjust his production, and therefore was crushing them.

That same day, a French newspaper carried a photograph of French farmers, at the border with Italy, overturning five or six trucks loaded with grapes in order to prevent their importation.

On the same day, consumers in the cities were buying fruit and wine at high prices, while the

farmers were crying over the low price of fruit.

The reason this sort of thing happens is that the commercial firms that stand in between can manipulate prices according to the information they release. If they tell consumers that prices are high because the supply of fruit is low and tell the producers that sales are poor, then everything goes well.

Because under this system no one knows the truth, only those people who can obtain and control information about the true production and adjustment figures decide the prices.

The time when the more of something there was, the less expensive it was. when you could profit no matter what you made or grew, was long ago, during the age of small-range economies. In the present age of wide-range distribution economies, power is concentrated in the hands of the giant commercial firms and financiers, and they decide the price of everything.

B. The Money-Sucking Octopus Economy

I call this situation a money-sucking octopus economy. At the center are politicians (octopuses), who have centralized authority. The military-industrial-government complex forms a single unit, and politics and economics are carried forward in a uni-polar concentration. The octopus's eight legs are the means, which are: 1. maintenance of the transportation network, including roads and air transportation; 2. control of agencies administering transportation; 3. supervision of communications and air waves; 4. establishment of an economic information network; 5. thorough educational and administrative leadership; 6. control of financial institutions; 7. exercise of control over organs of information; 8. control of citizens' computers and registration.

If the wealth of the outlying regions is sucked into the center by these eight legs, then even though it is carried out under the name of stimulating the regional economy or establishing regional culture, everything concentrates in the center.

The towel the octopus has tied around its head, like a sushi maker, is a ring of money, and this

money, like a magnet, draws more money from the outlying regions. Money gives birth to more money, and it goes on increasing.

What is the wealth that has been gathered and fattened in this way used for? It is used for establishing centralized authority, expanding national authority, and strengthening armaments. This will lead to a philosophy of national enrichment and military strength that, when it escalates, will result in the ambition to control the world. But pride goes before a fall, and in the end the octopus will either be hauled up by the master fisherman or will kill itself.

The tragic dance of the money-sucking octopus is always performed on the backs of the common people and the farmers in the outlying regions. But, the ruin of the outlying areas is the same as the octopus committing suicide by eating its own legs. In the end, the dance of the octopus, waving its legs wildly in every direction, is nothing more than the human comedy.

Now it appears the economic world is moving a step beyond the age in which the material is almighty into an economy in which money is number one. This is the "money game" or "bubble" economy.

C. Leaf Economics (The Money Game)

We could just as well call this "leaf economics." As long as a country like the United States is trusted as the leader of the world, even though it is the greatest debtor nation in the world, then the dollar bills issued without limit by every nameless town bank will continue to reign supreme as the world's currency. This money, which, if confidence is lost overnight, will be worth no more than the leaves on the trees, realizes all of man's desires. Country club memberships issued without limit are nothing more than leaves on the trees.

If they just have money, they can do anything. With an aerial photograph and the skill of one or two politicians, planning and construction of buildings, railways, airports, and highways can be accomplished in the twinkling of an eye. The current Second National Land Development Plan is a good example. Tokyo, Kishu, Shikoku, and Kyushu will linked together, but as a result of this,

along with three bridges spanning the Set Inland Sea, it will in fact divide the archipelago of Japan and, of course, will deal a death blow to the natural environment. With the simple statement that a bundle of money will invigorate the outlying regions, everyone has been swept away on a tide of enthusiasm, with government officials and private citizens forming a single, cooperative group.

Although since the enactment of the Resort Act, Japan has become a laughingstock in the world for the way it is remodeling nature, not one of the politicians, who ought to know the most about the world, has a thing to say. Those who consider what will be the fate of the bubble economy are, in fact, the social outcasts of this age.

I see the current state of the world as a revolving lantern. All things are money, and money is the light. The members of the industrial, government, and academic worlds are all running around this lantern in a race of acquisition. That is the way the world is.

As they run around and around, right and left disappear. People can no longer tell east from west, and the north-south problem disappears.

I have drawn a picture of this lamp. In it a horse with a golden carrot dangled before its nose is running along with the human race on its back. When the light of money in the center is lit and the lamp turned, the horse sets off at a gallop. It appears that the horse will soon be able to eat the golden carrot, but it will be unable to do so throughout eternity. When you turn the lamp rapidly, however, it appears that the horse is always eating its fill. The affluence of the people of this economic power, Japan, is just such a horse in a revolving lantern.

In order to increase the economic growth rate and GNP and invigorate the outlying regions, all we need to do is increase the currency of leaves and release information that will speed up the revolution of the lantern.

As long as we can see a lot of money before our eyes, even if the money immediately shifts from left to right, human prosperity will increase. We have the feeling that if we all spend together, to the accompaniment of money and drums, we will all become rich men.

When the lantern slows down and the economy grows sluggish, we can turn to a

"horsewhipped" economy. In this case, the government carries a whip along with the carrot, strikes the horse, and scolds it. It can push the citizens as hard as it wishes, so long as they don't fall down. The people are dizzy with the power of life and death. What is that they want?

The revolving lantern reminds me of the time I visited Lumbini, Nepal, the birthplace of Sakyamuni Buddha. As I rested in the thick morning mist beneath the Buddha tree, from no direction in particular, local farmers appeared in two's and three's, walked around the pond, at the same time turning prayer wheels they carried, and then disappeared. Time stopped for me, and in that frozen moment, I thought I heard the voice of the Buddha.

On my journey home, the person in charge of sacred Buddhist sites shoved me a plan made by the Japanese architect Tange for turning that place into a tourist spot, and I was astounded. The plan was to surround the site with a pond and construct a canal, so that people could worship from pleasure boats. In the center of the park, models of the great temples, churches, and shrines of the world would be built and used as a hotel.

There are no steps to be taken to know the mind of the Buddha. They are trying to make visiting sacred sites more convenient, shortening the time required, and trying to grasp the mind of the Buddha simply by seeing, hearing, and studying.

You cannot capture the true form with comics and revolving lanterns. One of the things that the human race must now think about seriously is that human time is unnecessary.

What the people want is eternal peace and the security of a life without working busily in human time.

Although the government prides itself on the fact that Japan is an economic power, and a majority of the people consider themselves to be members of the middle class, everyone can at least sense that the bubble prosperity and a life-and-death economic crisis are sitting back-to-back.

The frightening thing is the dangerousness of the industrial structure. (See diagram) Until fifty or sixty years ago, eighty percent of the Japanese population was farmers, and only a fraction of the people were in trade or industry. The structure of the population of the industrial world was

pyramidal, but now it is reversed. The primary industries account for barely five percent, and the secondary, manufacturing industries have been surpassed by the consumer service industries. If a typhoon of economic depression should arise overnight, this structure guarantees that all will collapse.

In the farming villages of Asia, Africa, and India we can still see the same landscape as could be seen in Japan until recently. The only tool used in Indian farm villages is the water buffalo cart. I sensed an immovable force in the words of a farmer who boasted that this cart had not been improved upon in the last 3,000 years.

At the foundation of the so-called underdeveloped countries, an ethnic agrarianism remains immovable, not wavering an inch. We know from historical fact that if they were to imitate the developed countries, with the growth of an economic civilization of centralized authority and unipolar concentration, the economy of individuals would be sacrificed and the people would be demeaned as the country prospered.

The peoples of the so-called underdeveloped countries know with certainty what people live and are given life by, who people work for, and what their goal in life should be. They see the skyscrapers of the developed nations as the tombstones of the human race and have perceived that the jets flying through the air are far inferior to a single horsefly buzzing freely about the blue sky.

A Thai folksong goes "There is rice in the fields / There are fish in the water / The peddler shouts his wares / You can buy what you want / The men have sown the seeds / Hurry, give them water / If you don't, they will die / Tonight the moon is full /" Doesn't this song tell us that the greatest joy may be found among the farmers living with only the bare essentials?

Small trees grow beneath large trees. If there is no grass growing beneath the large trees, their seeds will not grow. The large countries have small minds (microcosmic minds), the small countries have large minds (macrocosmic minds), and they coexist with mutual prosperity. That is the way of nature. In the thought of Lao-tze there are no large countries or small countries.

Can we be satisfied with the narrow-mindedness of the Japanese, who restlessly worry over weak and strong, poor and rich, who clamor over improvements and progress? We'll be lucky if

we don't bring a hornet's nest down around our ears.

Now, filled with regrets. I am going to go abroad, to sow seeds to revegetate the deserts.

Part 3 Cultural Criticism

A. A Denial of the Dialectical Development Theory of Civilization

People believe unconditionally that if human knowledge increases, learning advances, and civilization develops, they will naturally become happier, but is this the case?

If we reflect upon what the development of natural science has brought the earth and the human race, we must conclude that man has become no wiser nor has the true aspect of the world become clear and that there is greater confusion now than in the time of Sakyamuni Buddha. It appears that the more humans intervene in nature, the better things get, but on the contrary, the contractions only multiply, and the state of the world grows worse. If development is unrelated to human happiness, it is meaningless.

The time has come for us to take a fundamental look at the idea that the material is almighty and the materialistic dialectic theory of development that have been the driving forces of modern civilization. First it was determined that this world is a world of contradictions, and then the theory was fashioned as a means of solving the contradictions. In order to resolve them, one deepens one's speculation, moving left and right, and on moving a step higher and forward, you arrive at a third path.

First we should correct the view that this world is relative and full of contradictions, and recognize that it is perfect, maintaining a wonderful harmony with no confrontation between self and other.

Seeing nature as a scene of carnage where survival of the fittest reigns, the opposition of yin and yang, contradictions, freedom and equality as parallel but never meeting — these are nothing more than man's wilful way of looking at things. In the true state of nature, there is no large or

small, strong or weak superior or inferior Freedom and equality are warp and weft, woven into a single piece of cloth. There are essentially no contradictions.

Contradictions are simply fantasies aroused by the discriminative nature of man's relative thinking. They are arbitrary judgments.

In nature, tigers eat deer, deer eat grass, the grass eats the tiger's corpse. These are only scenes in the drama of life and everlasting change.

Humans are lost in fantasies of their own creation and from the time they see all the phenomena of this world as contradictions, they are lost in a mist of confusion. They have thought they could solve the contradictions with the dialectical theory, but they have only been grappling with their own shadows.

In the past and in the present, every time and everywhere, nature is correct, good, beautiful, and perfect. There is certainly no need to escape from it, nor should people strive to use and develop it.

To be sure, human culture, civilization, and science have developed with the aid of the dialectical theory, but what has happened as a result? Because of the high speed development of modern society, we cannot avoid suffering from the rapid destruction of nature and worrying over the rapid devastation of the human heart and the increase in social instability. Furthermore, these are not separate problems, and the frightening thing is that they arise from the same source of evil.

B The Whirlwind Theory of Development

A whirlwind draws everything into its center, lifts them up into sky, scatters them, and dies out. Then once again rain and sunlight fall from the heavens onto the earth, I see this whirlwind phenomenon as a symbol for the vicissitudes of human life.

The phenomena of this world are not, as Hegel and others thought, simple developments in a straight line. Rather, they expand in every direction and scatter. At the end of their development they reverse, shrink, and contract, become nothingness, become emptiness, and disappear in the

sky.

In other words, large, at its end, becomes small, and small, at its end, becomes large. When we gaze at an enormous macrocosm, it becomes a microcosm, and within what we saw as a microcosm, a macrocosm unfolds. People have seen neither large nor small.

In the world of human knowledge, there are large and small, many and few, but when seen with the eyes of Heaven, they do not exist. There is always change and changelessness. All things move and are motionless, and invariably return to the original. Changes in the human world are the same, a cycle of growth and extinction, life and death.

I have named this development and transition, as seen from a macro-perspective, whirlwind development and have made it a philosophy for solving the puzzle of this world. The dialectical theory of development was developed by looking at things with human, microscopic vision, but it will not hold true if you look with the macroscopic eyes of God.

C. The Philosophical Dharma-Wheel Theory

As a compass for dealing concretely with the localized problems of this world, I have developed the philosophical dharma-wheel theory.

The dharma wheel comes from Buddhism, which teaches of the great wheel of the law (dharma). Just as spokes move in every direction from the axle of a wheel. all matter and spirit in this world originated at the same time from the mind of God and spread in all directions. At the same time, however, all things are moving from every direction, being drawn into the center. The wheel freely expands and contracts concentrically.

The great dharma wheel can expand to the size of the universe and contract into the most minute microcosm. The wheel can freely expand and contract, even to become a priest's staff. In other words, it is a three-dimensional rule that indicates points (mind), expanse (space), and lines (time) and a comprehensive, philosophical compass.

Because people only have the two fixed concepts of time and space and observe and make

judgments of the surface of localized time and place, they have committed serious errors. True judgments can be made only with the farsighted view of the great dharma wheel, which transcends time and space. If we do not grasp all things and phenomena at the same time, philosophically and intuitively, we cannot make correct judgments.

The sacred mirror in the center of the great dharma wheel clearly reflects the entire world at once. Each of the spokes extending in all directions become priest's staffs. Each spoke stretches a thousand miles in one second, and if you swing them around, they cover an expanse of 10,000 miles. They have the power to crush or give life to everything. The staffs and wheel are truly useful, possessing the power of life and death, and they can also become points. The wheel's true purpose is to express, with a single state of mind, what will become of all things in this world.

Depending on the state of mind, all things in this world become large or small. If we look at people, lost amid far and near, slow and fast, strong and weak, and poor and rich, with the eyes of the great dharma wheel, all human judgments return to nonsense and vanish into nothingness. They are just wasted efforts.

just as Sakyamuni Buddha said that matter is void and void is matter, matter depends on people's minds, and the spirit arises from the flesh and returns to the flesh. He did not hesitate to state that both matter and mind have no essential value.

How many people have there been who understood this mind and could make the most of it?

In a wall painting at Lumbini, where the Buddha was born, is the declaration, "I am the only one who can solve the puzzle of this chaotic world," and in barely discernible letters you can read, "I will not be born in this world a second time." I couldn't help feeling a growing sadness at the thought that one who, along with directly denying the existence of hell, of which Buddhists of the world have made such fervent use, was able to understand our hearts, would never appear again.

CHAPTER 5: THE ROAD BACK TO NATURE

PART 1: THE DISAPPEARING VEGETATION OF AMERICA

A. The American Continent Today

I first visited the United States at the invitation of the leaders of the world natural food movement. The second time I went I was invited by the state universities of the three West Coast states. I was to be a special guest at an international conference on natural farming. The leaders of the natural farming movement there planned the entire schedule for my stay of one to two months.

I set out with the hope that in the U.S. I might be able to come to a better understanding of the problems I couldn't solve in Africa. The people directing the conference had arranged my schedule with great care. They had done thorough groundwork and had scheduled every free moment in order to show me things they thought would be useful to me. They also made sure they would be able to learn as much from me as possible during that time.

The plan was for me to start in Washington State, travel around Oregon, go on to California, and then fly to the northern states such as New York. Priority was given to the international conference and to lectures given to other universities and groups. Once or twice a day I would visit a farm and give practical advice. The travel time by car would be from two to three hours to five to six hours a day, and on four or five occasions we traveled in a light airplane. Between events, I would give interviews for newspapers, radio, and television, so it's not exaggerating to say that this hard schedule didn't leave me even an hour of free time. Afterwards I thought it was quite a feat that I kept this up for almost fifty days.

Ignorance is bliss, and since I'm an easygoing fellow. I just played it by ear. When I stood up to talk, I would look at the expressions on the faces of my listeners and then say whatever came into my mind. I could talk for hours without getting tired.

My general impression was that, as you travel from north to south, you can see that the desertification of the U.S. is advancing with increasing speed. To the north, in Washington State, there are still some old growth forests, but as you enter Oregon, the trees on the mountainsides gradually become sparser. The grass disappears and the green of the landscape grows fainter. In addition, agricultural conditions are becoming worse. This is closely connected with the

deterioration of the soil.

This time, as I traveled about the U.S., my impression was completely different from that of my visit seven years before. It seemed that the environment that surrounds agriculture is changing. When I went to the U.S. before, I expected it to be a green land, but when I actually saw it, it was a brown desert, I often commented on how the green there was an imitation green, how the agricultural products were simply petroleum by-products, and how the future of American agriculture appeared to be in danger. This time I felt even more that my foreboding would prove true

Broadly speaking, the continental U.S. is roughly divided into 30% desert, 30% the grain-growing region of the Great Plains (an area facing severe soil degradation), and 30% wilderness or open land (although the East Coast is all mixed woodland), leaving only about 10% to mountain forests where trees can be cut. in places like Washington State in the north.

In short, over half of the land of the U.S. is becoming a desert. I thought the American desert was a greater problem than Africa's, but most Americans seemed hardly aware that their country is becoming a desert. For example, they think it is only natural that, when little rain falls in the summer, the grass dries up and the plains turn brown. They think these are natural conditions for a continent. When I tell them that the grass is not drying up, it is only resting, and that although Japan's summer is hot, the vegetation reaches its deepest shade of green in summer, they are amazed. They are so dazzled by the vastness of their land that they are not concerned about protecting it

I've heard that at present one-third of American farmers are in dire straits, and moreover, influenced by this, many regional banks are failing. The farmers seem to be thoroughly convinced that the reason for this is the decline in agricultural exports, but there is no way that, amidst the ruin of the land and desertification, farmers can become well-off, no matter how much petroleum "rain" they use to grow their crops. Unfortunately, this point is generally not being given serious consideration

The agricultural experts and the agribusiness men all are bound by the idea that even land that

has lost its natural energy and become a desert can produce crops any time anywhere, with the addition of petroleum energy and water. On this point, Japanese scientists and farmers have the same belief and actually consider that form of agriculture to be advanced. They have begun to treat the soil as a nuisance, and it seems to me that, at the very least, they are forgetting something extremely important.

The pivot farm is said to be the representative form of agriculture in America today. It has circular fields which are regularly irrigated with giant sprinklers that form a diameter of over half a mile. In the midst of the desert those circles are the only dark green to be seen, and they are visible no matter how high you are above them.

But they are pumping water up from hundreds of feet below the surface of the ground and sprinkling it on the burning sand of the desert, so salinisation is the natural result. Fundamentally, this is agriculture based on disposability. After five or six years the farmers move to another field, leaving the previously used field a true desert.

It is thought that the desertification in America started with a fundamental error in farming methods, but even worse than that is the fact that, because the abandoned fields have become seas of dry grass, radiant heat is raising the temperature of the ground and scorching the earth.

In any case, the American farmer's earnings from 500-700 acres are now lower than a Japanese farmer's from 3-5 acres, and they are less well off. The fundamental reason for this is that, because they have forgotten nature and do not depend on natural energy but on manmade petroleum energy, the earth is being ruined, and the means of production and marketing are in the hands of business.

It is said that reform in the United States always begins on the West Coast, and this time when I visited the three western states, I felt that I could see the budding of a new agricultural revolution among the farmers of this region.

B. Sunday Markets

In the U.S. I was welcomed as the author of *The One-Straw Revolution* , but it seemed that I was so warmly received because people saw me as a new Oriental philosopher, rather than as a teacher of natural farming. It appears that in America today a revolution in consciousness is occurring, not only in agriculture but in every area of life. Both in cities and farming towns the same current can be felt.

What was especially noticeable this time were the Sunday markets and morning markets in the cities. In some green, open place like a park, amid colorful banners and lively music, street performers put on shows and people sell gift items and toys. Unlike Japan, the booths are beautifully decorated, and the attractive young salesgirls and cheerful, energetic youths call out to customers in animated voices. They clearly enjoy the market's relaxed, exhilarating atmosphere.

Also, there are booths serving many kinds of food, such as Italian, Indian, and French. We can see Caucasians dressed in Japanese happi coats, enthusiastically rolling sushi, and there are shops that offer delicious tidbits of tofu prepared in many ways we don't see in Japan. Everything is unique because it is improvised and made by amateurs.

Of course, the heart of the market is made up of all sorts of fruit and vegetable stalls, as well as shops selling things like live fish and pancakes. The distinctive thing is that all of the foods sold in the market are natural foods. I was told that products that generally can be found in supermarkets are excluded, at the request of the consumers.

Because the Sunday market is maintained as a place for natural farmers and amateur merchants, of course the salespeople are lively. Profit-making is not a motivating factor, and ingenious products filled with fresh ideas are sold in an amusing and relaxed manner. These are places for creativity.

Certainly each item is different, unlike those in a supermarket, and they are all fresh. People will spend an entire day at the Sunday market, enjoying shopping, eating lunch, and napping on the grass. Then, before leaving, they buy a week's supply of fruit and vegetables and take them home in their cars. Naturally, the popularity of the markets is skyrocketing.

Whenever I walked around looking at things in one of these markets, people frequently called

out, "Hey, aren't you Fukuoka?" They looked curiously at my traditional Japanese work clothes and presented me with unusual apples and pumpkins. At the markets in places like Davis and Eugene, it seemed that every third person knew who I was, and soon the hands of the people accompanying me were filled with presents. After awhile I would get caught up in the mood and would draw one of my clumsy philosophical cartoons with a felt pen on a piece of cardboard. When I gave these to people, they would be delighted and would promptly display them on the signs of their booths.

These philosophical cartoons of mine were often used as posters at the entrances of the university auditoriums where I spoke and outside natural food stores, and I was amazed to see them even being sold on T-shirts.

The question is, why were these cartoons popular among the Americans?

The setting at these Sunday and morning markets is clearly Oriental, and I think that the Americans, feeling isolated by their individualism, enjoy the liberated atmosphere and begin to relate to each other in an open-hearted Oriental way. We can see an intimation of future trends among Americans in this.

Another thing we cannot overlook is the natural foods boom spreading throughout the country. It is said that Oriental thought is at the basis of this. I know that, thanks to Herman Aihara in California and Michiyo Kushi in Boston, who invited me to the United States twelve years ago, a Japanese food boom began with the spread of natural food. When I went this time I could see that Japanese food had taken hold throughout the country, as had Chinese food, as a delicious and healthy cuisine.

The flavor and ingredients of the sushi and tempura shops are good, perhaps even better than in Japan. People are even completely at ease with the way of eating the food, and are beginning to comment on the choice of sushi ingredients, the way it is made, tempura ingredients, the way tofu is made, and the quality of sauce for dipping noodles. The American people have been considered poor cooks with indiscriminating palates, but now even the typical kitchen can offer various foods such as rice and brown rice porridge prepared in an American manner.

Given this situation, farmers are naturally going to set their sights on providing ingredients in response to people's needs. It is the natural course of events that when people become skilled at cooking, they seek a wealth of ingredients, and amidst a natural foods boom, things grown by natural farming are in demand.

In the past, in Europe and America, people did not raise tender vegetables such as we have in Japan, and they were not accustomed to eating any root vegetables other than carrots. With so few varieties available, they are poor cooks, and it is natural that they have indiscriminating palates. California tomatoes and oranges are sold at the same time throughout the U.S., and American housewives think nothing of preparing the same things to eat every day. In the same way, farmers, from generation to generation, believe that the only rational way to grow crops is to grow the same things in large fields using machines. They grow only soybeans in soybean regions and only wheat in wheat-growing regions, stubbornly persisting in this simplified agriculture. While we can say that this is typical of a continental culture, Americans seem to be rapidly turning their attention to the delicate, subtle Oriental flavors, farming methods, thought, and lifestyle.

Surprisingly, the motivating force behind the current revolution in American agriculture may be this food revolution in the lives of the average citizens and, resulting from this, the spread of family vegetable gardens. These appear to be related to the development of natural farms. It is a revolution occurring from the bottom up.

C Urban Natural Farms

Residential lots in the U.S. are large, and the average house may have a natural growth of trees or a lawn, so when it comes to making a family vegetable garden, unlike in Japan, it is possible to have just the kind you want.

On the ideal natural farm that I envision, a mixture of trees and fruit trees would grow together, and beneath them vegetables and grain would be raised. It would be a garden in which the mountains, rivers, grass, and trees would all become a unified whole, and their harmony would be

maintained. If I talk about such a thing in Japan, I will probably be considered unrealistic, but in the U.S., on the contrary, this idea is easier to understand in concrete terms and also easier to carry out.

When I suggested that it would be a good idea to plant a variety of fruit trees among the trees lining the streets and to grow vegetables instead of lawns and flowers, so that while the townspeople were taking a walk, they could pick and eat fruit from the roadside and pull up *daikon* to take home, people everywhere were surprisingly enthusiastic.

When I said that if you scattered clover and *daikon* seeds on the lawns, in two or three years the clover would overcome the lawn and the *daikon* would grow up naturally amidst the green manure, it was Japanese housewives, Chinese people, and other Oriental people living in the U.S. who were interested and said they would try it right away.

Americans would laugh and smile and agree with the theory, but they are cautious about putting it into practice. There is a reason for that. They realize that it will require a tremendous revolution in their adherence to "lawn" culture. If they cannot deal with this problem, then there will be a limit to the growth of family gardens in the U.S.

It seems that the goal in life of the average American is to save money, live in the country in a big house surrounded by large trees, and to enjoy a carefully manicured lawn. And, it would be a further source of pride to raise a few horses. Everywhere I went I preached the abolishment of the lawn culture of the West, saying that it was an imitation green created for human beings at the expense of nature and was nothing more the remnant of the arrogant aristocratic culture of Europe and America.

PART 2 THE ROAD TO NATURAL FARMING

A. People Sow and Birds Sow

A hot springs resort called Breitenbush served as the meeting place for a three-day symposium for an international group of scholars interested in natural farming. We had a pleasant time the

evening before the conference, soaking in the outdoor bath and the geothermally-heated sauna.

The hot springs are in a large old growth forest. A large meeting hall, a dining hall, and a number of bungalows for overnight stays are scattered among the trees.

In one corner a natural farm had been established to provide food for the dining hall. The person in charge had left, and the garden had been neglected. When I heard this, I decided to hold a training session on the farm before the lectures began.

The first person to plant seeds there was a young Japanese man named Katsu, who happened to be accompanying me as an interpreter. He had a chance to take a second look at this field he had planted two years before and then left to take its course.

According to Katsu, he had followed the natural farming method, planting clover in the entire field, dividing the many vegetables into small plots, and leaving them alone after they were planted. He said that leaving them to grow in such confusion had resulted in failure.

To be sure, at first glance the field appeared to everyone to be a failure, with a tangle of weeds grown up over everything. But when we went into the field and looked around, clover had spread over the entire field, there weren't as many weeds as there appeared to be from a distance, and in the midst of them, various vegetables were all growing quite large.

I gave the following explanation. This field is actually just fine for the first stage of a family garden based on the natural farming method. In the first year man sows the seeds, in the second year nature makes adjustments, and in the third year God makes a natural farm for us. The course followed by this farm is clear proof of this. This may sound impertinent, but thanks to Katsu's neglect, the vegetable flowers bloomed and went to seed, the seeds were eaten and dispersed by birds and mice, and, as a result, the seeds of the various vegetables were scattered in every direction. However, in the field there are dry areas, damp areas, infertile areas, and shady areas. For this reason, not all of the seeds that fell to the ground succeeded in growing. Through the survival of the fittest, only those seeds that fall in appropriate places sprout at the appropriate time the following year. The seeds meant to die, and only those meant to live and grow will thrive. It is inevitable that they look like a jumble, but gradually nature will show which things will grow well

in which places. We would do well to look at that example and follow it. The clover is spreading out all over, so if an effort is made to control a few special weeds, in time a fine field will emerge naturally.

Here and there we can see a stalk of wheat or rye that wasn't planted by human hands. The number of grains per ear are greater than usual. This suggests that it would be interesting to scatter seeds of rye and other grains on this field as well. Crops like garlic grow well here, so we ought to be able to get a succession of good crops of Japanese rye in winter and spring, after that melons and cucumbers, in their place leeks, and in winter again, broad beans.

In any case, this field, which appears to be a failure, can be said to be succeeding as an example of natural farming.

When I gave them this explanation, the members of the group were all delighted to learn not only the way of doing natural farming but also its outlook. But the one who gained the greatest confidence was Katsu himself.

Until now talk about natural farming has tended to be abstract, even for me, and as things become more vague, they become more difficult to understand

When I went to the U.S. and tried giving practical instruction, people were extremely quick to understand and were quite down-to-earth. The American people have an openness about them that comes from enjoying themselves in the natural world, and so they are broad-minded enough not to be perturbed by a few weeds. A field that is irregular, disorderly, and has weeds in it would be considered ugly by a Japanese person, but to Americans a mixed-up, disorderly field actually appears to be more in harmony with nature.

Even if there are weeds, among them are fat *daikon* and giant pumpkins, and those are what the Americans applaud. In fact, it seems that natural farming has made a solid beginning in the family gardens and small farms of Europe and America.

Because residential lots are large in the U.S., a family vegetable garden can provide for the food needs of the family, if they are willing to do the work.

I have been advocating that, in Japan, a residential lot of a quarter-acre would be an

appropriate in terms of allowing self-sufficiency and providing a good living environment, but in the U.S. I learned, to my envy, that they are not allowed to build houses on small lots, and that, while each state is different, in New York they are not permitted to build on less than one and a quarter acres.

When residential lots are large, the living environment changes completely. If the Japanese were to go into the mountains and enjoy nature and freedom (and strengthen their spirit of independence) as Westerners do, real estate prices in the cities would inevitably plunge.

In the U.S. you sail along the freeways through brown plains that are turning into deserts, but when you enter the towns, in many cases you suddenly see a luxuriant growth of large trees, as if you were in the forest. Wherever you go, the typical middle-class street is lined with natural trees, so much so that you just catch glimpses of buildings in the shade of the trees and in many cases, the homes are not even visible. The rich live deep in the hills. In the large cities, where the poor people live, there is no green. The typical town is quiet, clean, and full of greenery, but when you leave the towns, you enter a desolate plain with no green in sight. It is just the opposite of Japan. The finest houses are situated in deep woods or virgin forests. The problem is that the Japanese do not have the sense of independence of the people of the West.

B. Rice Growing in the Sacramento Valley

The move to return to nature in America has started not only among small farmers but also on large farms. I am thinking in particular of the Lundberg farm, which grows brown rice and is known throughout the U.S.

Seven years before, I had visited the owner of this 7,500 acre farm outside Chico, California, to promote natural farming. When he heard what I had to say, Mr. Lundberg leaped to his feet and exclaimed with delight, "This is wonderful! It's a revolution!" I had heard that he immediately took my words to heart, fired six of his tractor drivers, and began natural farming, but I didn't know what had happened after that.

When I saw him again, he said, "Since I met you, I've become more open-minded. Come and take a look. My three brothers and I all are doing natural farming now." As if reflecting what he said, grain elevators could be seen standing in four different places on the farm. "Three hundred farmers have gathered here today to celebrate the founding of an association that aims to increase the production of natural rice and to sell it around the country. I hope you will accept this medal for distinguished service from our company." He presented me with a large silver medal.

After that, a procession of cars carried the three hundred people along the road running through his large fields. (In fact, rice fields stretched as far as you could see in every direction.) After driving for thirty minutes, we finally left the fields behind and arrived in a cool spot shaded by a number of trees, where we were to have an outdoor party and I was to speak.

What impressed me was that, although these thousands of acres of rice fields were filled with barnyard grass, he was unconcerned, and none of the other farmers looking at the fields gave any sign of being worried about all the grass.

If we had been in Japan, these fields would clearly have been a failure, and people would have said that with that much barnyard grass in the fields/natural farming would be impossible. But Mr. Lundberg was unperturbed, and I realized what he had meant when he said he had become more open-minded.

Along with being impressed that he had been able to look calmly at all that grass for six years, I realized that the vitality of the fields had been the source of his success. Despite the barnyard grass, the fields produced 16-18 bushels per quarter-acre (the average in Japan), and since harvesting with large equipment is no obstacle, his complacency was only to be expected

Until seven years before, he had been trying to farm organically and had grown rice only once in three years. (The fields would lie fallow for one year and would be planted with summer barley during the second.) After talking with me, he had begun natural farming, and not only has he been able to grow rice every year, but because it is natural rice, he can get twice the price paid for ordinary rice in the U.S It is not surprising that he has had such success.

He has been quite clever, and by combining various brown and black long-grained varieties, he

is able to market a delicious natural rice.

He revealed to me his plan to incorporate my rice and other varieties and to work together with the three hundred growers to expand into every part of the country. He also told me of his firm resolve not to surrender to the oil companies and the capitalists backing them, no matter what difficulties he encountered.

There are some who think that I should not be helping American rice growers when there is said to be overproduction of rice and calls for reduction of acreage in Japan, but I disagree. At present, neither country is dealing with the essence of the problem. They are just putting on an exhibition match, taking jabs at each other for the benefit of the audience.

When I saw the enthusiasm for raising new varieties of rice among the growers in Chico, in the heart of California, I was convinced that natural farming will expand rapidly and will contribute greatly to making rice a part of the diet in the US. Before worrying about pressure from other countries, Japan should take care of its own problems.

C. Sowing Seeds on the Plains

My dream is to sow seeds in the desert. The greening of the desert means sowing seeds in people's hearts and creating a green paradise of peace on earth.

At present the natural world is deteriorating rapidly and people have been thrown into a state of confusion. We must now bring about a new Genesis. I believe that the time has come to remake the earth. If we do not gather seeds of plants from around the world, mix them together, and spread them over the earth from airplanes, we cannot possibly accomplish the greening of the deserts. In an island country like Japan, if I talk about this dream, saying that we cannot survive without it, people just laugh, but when I talk about it in the U.S., it is no longer a dream. There it seems that if people make up their minds to do something, it can be accomplished.

For example, while I was riding along the freeway from Oregon into California, I wondered aloud what would happen if we were to broadcast seeds of *daikon* and green manure from the roof

of the car onto the brown wasteland on either side of the road. A young man riding in the car took packets of various kinds of seeds out of a bag he had with him and presented them to me. He said he was a plant taxonomist who specialized in root tubercle bacteria and, in particular, collected nitrogen fixing plants. He had heard me talk several days earlier and had come along because he was impressed with the campaign to sow seeds in the desert and wanted to help.

Before we entered the state of California, he had the car stopped on a mountain pass overlooking a beautiful landscape. He handed me the seeds of various vegetables that he had readied and asked me to sow them. I broadcast the seeds from the top of the pass into the valley below. The others with me did the same and shouted with delight. The seeds were lifted by the wind and carried far away.

He was not the only one. In Washington and California as well, there were groups and individual botanists carrying out serious, modest research that is of no use to the public. They are collecting primitive varieties of vegetables and other plants traditionally grown in those regions, even if they have no value as cultivated plants. They promised to give me seeds whenever I asked for them. The director of the Paleobotanical Garden in San Francisco, who is quite knowledgeable about Africa, gave me as many seeds of plants suited to the desert as he could.

Here is one example that substantiates my supposition that Americans will act. I gave a talk at a college in Ashland, Oregon, and on the following day I visited farms in the morning and afternoon to talk with the farmers.

When I had finished my talk, one young man stood up and said, "'Aren't you going to do anything more than listen to what Mr. Fukuoka has to say? I'm a pilot, and I have a plane that can be used for broadcasting seeds. It's equipped with a gun for spraying the ground with seeds. Do you want to use it?" When he said this, twenty or thirty people volunteered to help collect seeds. Then a woman stood up and said, "I have 750 acres of wasteland you can use, so why don't you try sowing seeds on it?" The talk moved quickly, and in ten minutes the revegetation of the area had been settled.

I have even better news to report. I had hoped to talk with people at the United Nations but was

unable to because everyone was on summer vacation. When I returned to Tokyo, however, a Frenchman who works for the U.N. and is stationed in the African Congo came to talk with me, through the introduction of the Kushi's in Boston. As a result of our meeting, we made a plan to broadcast seeds over several North African countries by airplane, and he said he would try to have it done by the U.N. He is the person at the U.N. overseeing that region.

D. From Organic Farming to Natural Farming

In the future, American agriculture will probably grow even larger on business capital, but on the other hand, people who are inclined to using natural methods will probably progress from organic to natural farming.

The problem, however, is that the distinction between organic and natural farming is still not generally understood. Of course, scientific farming and organic farming are not that different, and fundamentally both can be called scientific. Consequently, the boundary between them is unclear.

The major objective of the international conference I attended on this visit to the U.S. was to assess the current world situation and to determine in which direction to move in the future. In more concrete terms, the goal was to examine how various farming methods now being practiced, such as Permaculture, organic farming, and other methods based on new ideas, relate to each other and to what extent they can act in concert.

I may just be feathering my own nest, but as far as I can see, the only way is to follow the road back to nature, bearing in mind an Oriental natural philosophy. I believe that in doing this, we will establish techniques that go beyond our present technology. Although this philosophy still takes various forms and names, it is clear that the thought underlying it is my "Green Philosophy" as I described it in *The One-Straw Revolution*.

It is fine to turn gradually from organic farming onto the road that leads to anti-scientific farming. It is fine to set our sights on farming that perpetuates itself infinitely and on a return to nature, even while enjoying life on a designed farm. But these must not end up as microscopic

techniques and should not be used as temporary fads. Even though we have these at our command, at the core there must be a natural philosophy, in order to establish a farming method that will become the great principle of an agriculture that continues infinitely.

I emphasized this point at the international conference, and I was able to see that such a way of thinking could be adopted when I visited the Agriculture Department at the University of California at Davis. This Agriculture Department is famous for playing a leading role in agricultural science in the U.S

I was told that at this university, the faculty does not lead the students but that the students are pulling the faculty along. As one of their experiments, the students as a group are running a farm using natural farming methods, so I decided to have a discussion with the students working on the farm. This is the gist of what I said at that time.

"It's interesting that you are growing various kinds of primitive crops among symbiotic crops and medicinal plants. Still, your use of clover and alfalfa, which must be the basis, is insufficient. You are giving priority to growing crops and putting off efforts to invigorate the soil. I have the feeling that you are groping around in the gap between organic farming and natural farming, and if you continue in this manner, you won't have a strong impact on the world."

The leader of the group, a young man from Ethiopia, asked the first question, and then I was showered with others. I've forgotten much of that interesting conversation, but these are some of the things they asked,

"Classes in agricultural science are just useless. Is it possible to converse with nature through books?"

"Won't the natural farming method become less beneficial to man the closer it approaches nature?"

"You talk about becoming one with nature, but how do we begin to achieve that? Through observing nature?"

"What is the difference between nature and nonintervention?"

"Do you think growing primitive crops is a shortcut to nature?"

"You say we shouldn't incorporate human knowledge or action, but does this mean that growing improved variety of pumpkin violates the spirit of natural farming?"

"You say we should talk with the crops, but does that mean that the pumpkin is unhappy?"

There were many novel topics raised, with difficult questions and original answers. As the students began talking excitedly in loud voices, a crowd of spectators soon gathered around us.

I told them that the view of the universe and the religious view are essentially one. The view of society and the view of life also are one. They should not be separate. If you understand the heart of a single *daikon*, you understand everything. You understand that religion, philosophy, and science are one and are nothing.

It is simply nonsense to say "I am a religious man. I understand the mind of God but not the mind of a pumpkin" or "I earn my daily bread by being a professor of Western philosophy, so I have no desire to become a farmer and grow crops."

The question is, from where does the confusion arise in the minds of people who say we don't need to understand the mind of a pumpkin or are worried that the pumpkin is sad.

From the time that they forgot that food, clothing, and shelter are all the creations of God, people have lost sight of the mind of God and have become unable to understand things. Without understanding what it is to know, they have sought knowledge and have become lost. But human knowledge hinders knowing the true substance of things and serves only to cloud the spirit of things and causes us to lose sight of them. Because people don't really understand what natural water is, they believe the water that comes from the lap and the water in a river are the same.

I don't remember how I answered each question at the time, but on such occasions I even surprise myself with my ability to carry on a witty, interesting conversation, so I at least remember that it was a very enjoyable discussion. In any case, I think I gave the following responses.

"The reason your classes are uninteresting is that you are listening to your professors talking about nature in an auditorium illuminated by fluorescent lights. Isn't it pleasant for a man and woman just to talk to each other in this sunlight or in the cool shade of tree?"

Ask the pumpkin whether it is happy or sad. But instead of the pumpkin, you should be

worrying about yourself.

When people try to grow crops using human knowledge, they will never be anything more than farmers. If they can look at things with a detached mind, then through the crops they will be able to gaze at the entire universe.

People talk of creating things with soil or with water, but they waste water and use it carelessly. The water is not used for its original purpose but for some secondary purpose. I think we can say that nonintervention also is a state in which nature is diverted from its original purpose.

When people have been released from the idea of making things and have abandoned human knowledge, then nature will begin to return to its true form.

The rebirth of nature is not simply a return to the primitive. It means that nature will create a new nature. My method of natural farming as a return to nature aims ultimately at the liberation of the human heart. That's as easy to understand as I can make it." When I concluded with these words, one young woman in the group blurted out, "It's so easy to understand that I don't understand at all." and everyone burst into laughter.

When I continued, "In a word, everything is completely useless, so forget what I just told you," another student poked fun at me, retorting. That "word" of yours was useless too." That brought another round of laughter, and I thought this one of the most enjoyable discussions I have ever had. Finally, I told them I wanted them to keep our talk a secret from the university professors. The students again roared with laughter, and from their midst two sheepish-looking gentlemen emerged. When I had shaken hands with them and looked at the business cards they handed me, I realized that they were the president of the university and the chairman of the Agriculture Department.

They told me they had been impressed with what I had to say and promised to put it to good use in guiding the students in the future.

That day there was present a woman, the owner of a farm, who listened intently from start to finish without saying a word. The next day, when I visited the Sunday market in that town, she turned out to be the leader of the market, and the university students, led by the young man from

Ethiopia, were bustling about selling produce from their farm. At this market, there were many people who knew me, either directly or indirectly, and they all came up and shook hands with me.

E. The International Conference on Natural Farming

Now I would like to summarize the proceedings of the international conference. The first session of the conference was held at Olympic College in Washington State. This is a quiet campus with a dense growth of large trees. The structure of the main hall that was our meeting place was extremely original, a succession of tiers. Six hundred people attended the conference.

I was struck with admiration that the opening remarks for the conference were delivered by one of the university professors, who was a Native American. He wore a feather headdress, and his stately ceremonial attire was especially beautiful. I was very impressed with his address, in which he cited ancient American Indian legends as he questioned the nature of human knowledge. It reminded me that I really was in America.

On the first day there were introductory remarks from the people from other countries, but the main event was to be talks given by Bill Mollison, an advocate of permanent agriculture from Australia, Wes Jackson, who lectures on low-energy agricultural methods at the University of California, and myself.

The distinguishing feature of Mollison's Permaculture is that, in opposition to modern scientific farming methods, which rob the soil, Permaculture uses perennial plants and creates farms designed like landscape gardens, so that the farm can perpetuate itself indefinitely. It is based on organic agriculture and appears to have quite a following in Australia and the U.S.

Jackson's argument centers on the point that if we do not develop farming methods that use the least possible fossil fuel energy, there will be no future for agriculture. It appears that, while he fundamentally accepts scientific agriculture, he is searching for the beginnings of a new agriculture. I was introduced by the moderator as "an advocate of natural farming, which is

founded on the philosophy of 'mu (nothingness) and which disavows science." He then added that it would be worth listening to see how Mr. Fukuoka would respond to Mollison's organic farming and Jackson's scientific farming.

The plan was to try to discover what could be the course of agriculture in the future from our three different viewpoints. On the following day the three of us were to hold a panel discussion. We were lined up together on the platform, and the discussion took place in a question-and-answer format, tournament-style. The principal questions had been given to us the day before, and the debate was proceeding smoothly in accordance with the general outline, but it unexpectedly dissolved into a slapstick comedy that had everyone roaring with laughter.

Mollison spoke English with a strong Australian accent, so Jackson teased him, saying he couldn't understand a word Mollison was saying. To top it off, I had three interpreters, and whenever I said something, they would give three different translations. Someone in the audience joked that they had no idea what Fukuoka was really saying. As a result, the Americans were reminded anew of how difficult it is to enter into the heart of Oriental languages and expressions. People were perplexed and intrigued, and the exchange of strange questions and amazing answers continued amidst gales of laughter.

At the end, I drew a picture of Don Quixote's donkey. On its back were a blind Bill and a deaf Wes, both riding backwards, and me hanging onto the donkey's swishing tail. The three Don Quixote's, hoping to return to nature, were trying to stop the donkey from rushing wildly toward the brink of despair, but it was hopeless. Everyone asked what would happen, so the I drew President Reagan standing behind the donkey's head and dangling a carrot in front of the donkey's nose. When I said, "What do suppose the carrot is?" someone said "Money."

The moderator laughed and said that it would be a shame if our discussion ended up in the same fix as the Don Quixote's and announced that the next session would be held in San Francisco, where a conclusion would be reached.

The third international conference was held one week later at the Agriculture Department of the University of California at Santa Cruz. The university campus was built on an extensive site

following a new concept. Once you enter the gate, you find yourself amidst a forest of giant hemlock and redwood trees. In order to preserve this virgin forest just as it was, the buildings were constructed so that they seem to appear and disappear among the trees, and the distance between buildings is too far to walk.

There were no other seminars being held during the time I was to give my talk, so I was allotted plenty of time and, moreover, was given the role of bringing the conference to a close.

The auditorium, which seated 800, was filled to capacity. Half of the audience were adherents of the nature movement from around the world, while the other half were people connected with the university. I was told to assume that many of them were supporters of scientific farming. The air was filled with tension.

I have forgotten what I talked about then, but I interspersed jokes with my talk, and I think the audience enjoyed listening to me. But when the interpreter began to read my final statement, the hall suddenly fell silent, and I was rather concerned about what had happened. The moderator then called for any dissenting views and, designating two people from among those who had raised their hands, sought their opinions.

The first person to speak was from India. He said that my ideas were just like those of Gandhi and that in the ancient Indian texts it is recorded that no-till agriculture was practiced in that country long ago. He concluded by voicing approval for my farming methods.

The man who stood next was a high-ranking professor of the University of California in both religion and philosophy. He had disagreed with me the day before concerning Western philosophy, saying that Socrates had been deranged. I said that even though I could reject all the Western philosophers from Descartes on down, there was no way for me to deny even a syllable of what Socrates said. We reached no conclusion and parted with the agreement that we would settle the matter publicly the following day.

Of course, I expected him to counter my argument, but he turned his back to the podium, faced the audience, and launched into a five-minute speech

"Mr. Fukuoka has explained how, in the course of Western philosophy, Descartes, Locke, Kant,

Hegel, and others established the foundation of modern science. Moreover, he completely negated the basic principles established by these Western philosophers and was successful in substantiating his argument. This is quite startling. We cannot avoid recognizing that modern scientific agriculture has been undermined by those principles. I welcome Mr. Fukuoka's natural philosophy and farming methods as a new way of thinking and acting that will create the next generation."

When his speech was finished, everyone joined in a thunder of applause that echoed throughout the auditorium. I was overwhelmed with emotion and, thinking that there had indeed been a purpose in my coming to the U.S., felt as if a heavy burden had been lifted from my shoulders.

Word has reached me to the effect that this year the U.S. government announced that the main route (the basis) for agriculture should be natural farming.

F. Japanese Cedars at the Zen Center

After visiting some Eastern states and before I started my journey home, I stopped at the Green Gulch Zen Center outside San Francisco, a place I had visited before. This center is surrounded by bare, savanna-like hills, but considering that there is a redwood forest in a nearby national park, it seems likely that in ancient times this area also was densely forested.

My guide when I visited the place before, the leader of the center and a Native American Indian chief, was no longer there. After seeing the redwood forest, where huge trees 200-250 feet in height grew densely over a large area, I had told him that the ecosystem of mixed trees and undergrowth in the park closely resembled the virgin forests of Japan. We discussed the fact that a hint about how to accomplish the revegetation of California could be found there. When we parted, I told him "You are the guardian deity of the American forests. You are a giant in both body and spirit." He replied, "You are small, but you are a giant of the Orient," and everyone had a good laugh.

Redwood trees quickly grow to a large size, but their roots are shallow, so they easily fall over. In contrast, the Yaku and Yanase cryptomerias, or Japanese cedars, send down deep roots, so I promised to send him some seeds of those varieties. After returning to Japan I did send him a handful of seeds, and in return he presented me with a cup made from the top of a redwood tree.

I had heard that he carefully planted those cryptomeria seeds, but when I visited the Zen Center this time and the members came to greet me, the first thing they did was show me a photograph.

The large photograph showed the leader on his deathbed, surrounded by his disciples. He had raised himself into a sitting position and was planting seeds in a seedling flat. They told me he had said, "These seeds are Fukuoka's spirit. Sow them carefully, and when the seedlings have developed, plant them in those three valleys over there." After giving them these instructions, he had passed away.

When I thought about how he, with his large body that resembled the images of the recumbent Sakyamuni Buddha entering nirvana, had cared so much about the seeds I had sent him and had been deeply concerned about the greening of the desert, a lump rose to my throat, and I was unable to speak.

Ten or twenty people took me to see the place where he had told them to plant the seedlings. Several hundred cryptomeria saplings were growing there, some of them as much as six feet tall. Iron stakes had been driven into the ground around each tree, and barbed wire was wound around them. I was told that this was to keep away the deer, and I realized just how much trouble they had gone to. "Our teacher must be glad you came to see this place."

"Our teacher is resting at the foot of that hill over there." Then I looked closely in the direction they were pointing. I could see a spot of about four square yards on the other side of the valley where some stones had been crudely piled up. It was similar to gravesites I had seen in the desert of Somalia.

One person said, "Our teacher must be calling out to you, saying 'Let's plant seeds in the desert.'"

Jokingly I answered, "It looks like a comfortable place. It might not be bad to lie down there

with him." But as soon as I had said this, I suddenly burst into an uncontrollable flood of tears.

Yes, it was true. The man lying there had been a sower of seeds in the desert. When I thought how he might be the only person I would ever meet who understood me, who would live with me and die with me. I stood rooted to the spot, heedless of the tears coursing down my cheeks.

I have no idea why I was crying so, when I hadn't even shed tears when my mother and father died. This was the second time I had cried in fifty years. The first time was on my earlier visit, when I spoke at a summer camp held in the midst of a virgin forest at French Meadow. I was recalling the spring of my fifth-fifth year. when I underwent my change of heart, and had just asked, "What is the true nature?" Suddenly words failed me, and tears flowed from my eyes. I had to ask to stop my talk. The situation was completely different, but I had the feeling they were same tears.

He was no longer here. Neither his body nor his spirit were in this world any more. It was because I knew that his spirit was not even drifting about in some other world that I was able to cry.

I sensed that those tears flowed from some place that transcended life and death and that, in fact, I had been bathed in refreshing tears of ecstasy

The people of the Zen Center must have had the same feeling. They left me there and, while gazing up at the blue California sky and talking happily about him. headed back to the Zen Center.

PART 3: A MESSAGE FOR THE 21ST CENTURY

A. Let Us Return to the God of Nature

In this relative world, the centrifugal growth of man's material civilization, which is based on dialectical thought and aims at acquiring knowledge and things. is nearing the limits of expansion. It is inviting the destruction of nature and the ruin of the human spirit. We would have to say that this age is on the verge of disintegration and collapse.

The coming century will have to be an age of spiritual culture, in which we reverse our course and return in a centripetal manner to the source of nature, which is God. In other words, it must be an age in which we make fundamentally clear what the reality of man is, an age in which we live in peace, following natural methods along the nameless way of no-knowledge and no-action.

Now is the time to put a stop to dialectical development built on a false, centrifugal civilization, to grasp, philosophically and religiously, the reality that the human race is facing the end, and to do away with bewildered notions in every aspect of life.

A Revolution in Thinking

The new nature movement, which is based on the fact that "nature is God," will bring about a fundamental revolution in religion and philosophy,

(1) A worldwide religious revolution - Now is the time when the world religions such as Christianity, Islam, and Buddhism must be joined together and combined in the name of nature. If we do not hurry to develop a movement to unify all religions and systems of thought, the world will be destroyed by ideological war. That has already begun.

Philosophy has been divided into western and eastern philosophies but it goes without saying that their differences should be buried and that they be unified. The function of philosophy is to provide the illumination of the Holy Spirit in order to reunify God and God's children, which were originally one. It must become 'a compass that aids religion and logically corrects the illusions held by man.

(2) A peace revolution - We must acknowledge that being unarmed is in fact the most desirable means for achieving peace. Individuals must swear not only that they will never take up arms again but also that they will not participate in any arms-related industries, either directly or indirectly. They must go beyond the notions of state, race, or individuality and declare themselves free, global people. When all people have proclaimed their adherence to an eternal renunciation of war, both at home and abroad, then we must remain faithful to it.

In this book I have spoken about "each tree and each blade of grass," the God of a new religion that transcends religion. And yet, even though I say it is a new religion, this God, which is symbolized by Lao-tse's expression, "The Nameless Way," is not at all dissociated from the God of Christ or Muhammad. God is also exactly the same as the Buddha about which Sakyamuni taught. I have simply come directly to the point by speaking of the true form of the God of the past. Consequently, I have not created a new religion and a new God that rejects the God of the past, but from the viewpoint of the mistaken religious thought of the past, it appears to be the first sign of a new religious revolution that will bring about the destruction of the old.

If the form of God is clearly manifest to people, then it should become apparent to them what religion is and what people should do in terms of religious activity. Needless to say, the single goal man should pursue is to return to nature, and becoming a protector of nature should be his only religious activity

Originally the earth must have been a Garden of Eden. If we were to ask what heaven is, it would have to be this. No matter where we journeyed, there would be vegetation everywhere, and flowers would bloom year-round. Among the wildflowers and clover growing by the side of the road, we would find *daikon* and turnips, tomatoes and cucumbers. Even grains would be mixed among them, and we would be able to eat any time. If we went to the mountains, crystalline springs would flow from the rocks, and the rivers would be teeming with fish. If we went into the forest, there would be plenty of firewood and a variety of nuts and fruits we could freely pick and eat.

There, man's ugly strife over poverty and wealth, wisdom and stupidity, superiority and inferiority would cease, and a peaceful world of freedom and generosity would emerge. There we would simply live together with nature. The world would become the country of God, where strains of the hymns of love, beauty, and joy would fill our ears.

Now the world is faced with two alternatives - to make the earth the country of God or a hell ruled by demons.

Rather than shower the earth with missiles launched from space shuttles, fighter planes, or

bombers, we should now gather seeds from around the world and scatter them on the earth.

Nowadays young people are placing all their hopes for the 21st century on the space shuttle, which is replete with all the contradictions of mankind. The space shuttle may be capable of becoming a powerful weapon for the destruction of the earth, but it can never become a Noah's ark to save the human race.

Noah's ark is not something built by man. This very earth, created by God, is Noah's ark. If man dreams of fleeing the earth in some manmade satellite, which would be nothing more than a speck of dust in the cosmos, it is the most foolish tragedy imaginable. I wonder what sort of Garden of Eden this new human race is trying to create in space. It is impossible to cause flowers more beautiful than the flowers of earth, which are God, to bloom in the darkness of space.

B. Putting a Stop to the Reckless Course of Science and Economics

Scientists must understand the boundaries of their own domain and take responsibility for braking their reckless course. Scientific truth cannot become absolute truth, and when one takes a farsighted view, in other words, God's view, it is always imperfect and only arrives at false conclusions. It changes according to time and place, deludes society, produces artificial materials, and is only capable of providing people with a false joy.

People must reflect with humility on the fact that they cannot know true nature by accumulating information through discriminative knowledge and analysis of nature, nor are they in any position to make the most of it.

The development of natural science and the idea that the material is all-important have combined and mankind appears to have achieved an unprecedented cultural development, but that is nothing more than a fictitious illusion. Of course, the economic prosperity bullion it also will meet the fate of becoming a froth or a dream and disappearing.

Today's frontier scientific technologies will be reduced to peripheral science, and in particular

the scientists who study the phenomenon of life will have to awaken from their toying with the skeleton of nature, the sense of well-being that is nothing but a shadow cast by that skeleton, and the foolishness of being carried away with their fantasies. The science of life, in addition to trivializing human beings and turning them into robots, is ensnaring men in a life and death crisis.

B. We Must Hurry to Revegetate the Earth

We are not in a situation in which the loss of vegetation on the globe can be patched up by the backward, disconnected natural conservation movements of the various countries.

Reform of Plant Quarantine

The success of the greening of the earth depends on whether or not it is possible to obtain the mutual consent of the nations of the world. One difficulty directly related to this are the laws currently enforced by the countries of the world regulating the import and export of plants and animals. To be more specific, many countries have laws requiring plants exported or imported to be quarantined, in order to prevent the spread of diseases and insect pests of agricultural plants, so we cannot import or export plants freely. While the import of useful plants is welcomed, harmful plants such as weeds are shunned. Even, if this were not the case, there are sometimes problems in connection with naturalized plants.

Nevertheless, the world has become smaller, and the development of various means of transportation has intensified the movement of people and goods, so quarantine systems for plants and animals are rapidly becoming little more than a name. The reality is that the plants and animals of the world have already been mingled and mixed together. It seems to me that the time has come to abolish these regulations.

We should recognize that the ecosystems of the microscopic plants and animals of the world are rapidly losing their balance. It is already too late to patch things up with limited, halfway

attempts at plant quarantine. We must realize that the earth has entered a second Genesis. The time has come when we must take advantage of the destruction of the balance of nature to establish a new order on earth,

Originally the living things of the earth must not have suffered from disease or pests. Man has created his own diseases, and in the same way, where the idea of disease and insect damage among living things is concerned, at various times and places man has made distinctions between good and bad, useful and useless organisms. When man began cultivation of plants based on the idea of appropriate place and method, he invited unnecessary confusion on the world.

Therefore, if, in order to restore the ecological systems of nature, we adopt a policy of vigorously introducing all kinds of organisms and doing away with their uneven distribution, then nature ought to recover its balance naturally.

This means fundamentally changing the natural ecological systems of the earth that man has created and controlled and bringing back to life the systems that God intended. Now is a rare time, the second Genesis.

We must resolve to carry out a plan for mingling plants and animals on a global scale, restore the ecological systems of the earth, and return the earth to its original state of a green paradise. But if the countries and peoples of the world dissent and feud with each other and try to patch things up with local measures for conserving nature, we'll be waiting until the rivers all run dry

God is no longer making any effort to save the human race. Man must save nature which is god.

That is the rebirth of nature, a plan for the revegetation of the earth. It depends on whether or not you will become a sower of seeds in the desert.

The World Agricultural Revolution

We must promote an agricultural revolution, using the methods of natural farming, as a means of fundamentally reforming modern civilization and modern scientific farming, which have

become the largest source of desertification on a worldwide scale.

In every country, farming originally was sacred work dedicated to God, which is nature. From now on farmers must make their goal in life returning to the essence of nature. They must protect the earth, live independently, swayed neither to the right nor the left, and enjoy a free life of self-sufficient natural culture.

This is possible only through natural farming methods, which have no production costs and make the most of nature without plundering the earth of resources such as petroleum. In other words, if we revegetate and make the earth fertile through non-cultivation, using no fertilizers and no agricultural chemicals, the earth will become abundant on its own and will become a storehouse of healthy food. Then true freedom and peace should visit the earth for the first time.

Here are some concrete examples. (A) We must commence with natural growing of green manure crops, fruit trees, vegetables, and successive rice/barley crops by the no-till direct seeding method. (Agronomists who still have doubts about natural farming should look at my fields, managed by one person until harvest time. Nature is carrying out biennial cultivation in these untilled fields.)

(B) The traditional diet of Japanese farmers, which makes the most of nature, is now being accepted around the world as health food. We must now make the best use of the Japanese farmers' intensive, subtle techniques and the processing of microorganisms that is their specialty.

There are few examples in the world that compare with the way Japanese farmers have mastered the techniques for making the most of nature, such as matted rice, miso, soy sauce, rice and barley, fruit wines, as well as pickled vegetables and mushroom cultivation. In order to make full use of these skills, the free use, processing, and marketing rights for all agricultural products, starting with the prompt abolishment of the liquor tax, should be given to the farmers, allowing them to make a fresh start.

It is obvious that during the period of confusion following World War II, farmers were able to scratch out a living by producing homemade distilled spirits. Now there is no other way for farmers than to escape poverty and gain renewed, more active lives. This will first become

possible when conditions that allow the best use of the unrestricted, generous originality and ingenuity of the farmers themselves is secured.

(C) Distribution revolution, production of food, marketing, and distributive machinery should never have been differentiated and specialized. The consumers should become one with the producers, rather than separate from them, at the very least becoming Sunday farmers. They should develop a communal system, in the sense that they receive the blessings of nature, work for the revegetation and preservation of the earth, and turn all the land over to producing natural foods. The ultimate goal is to turn the earth into a paradise abounding with food and to work and play together.

The Establishment of a Seed Bank

In order to revegetate not just the desert but the entire earth, we should create banks of seeds to use for revegetation, collect seeds from every country, exchange and distribute them widely, produce and plant them. (These should begin in the U.S., Thailand, and India)

In addition to planting seeds by hand, we should promote broadcasting of seeds from airplanes, in order to sow seeds coated with clay over a wide area at one time.

A Lifestyle Revolution

In order to promote a new naturalistic way of life, we must change our standard from concentrated living in urban areas to scattered residence in the countryside. In other words, we must change laws throughout the world to make it possible for everyone to take up residence freely anywhere in the countryside and to enjoy freedom and self-sufficiency.

In order to do this, we must first do away with the legal classification of land categories (forest, farm, residential) and building restriction codes (roads, water supply and drainage, and so on). In place of these, we should oblige people to disperse by maintaining a fixed distance between

individual residences, for example a distance of 300 feet or more.

If everyone became a Sunday farmer, using one-fourth of an acre, we could succeed in achieving the revegetation of the earth as well as food self-sufficiency for each family.

We should make our goal for the 21st century an ideal, worthwhile life that transcends nation and race, allows everyone the freedom to choose where they will live or move to and allows them to enjoy nature.

"A Green Peace Crusade"

Based on the understanding that the earth will be endangered in the 21st century by the reckless pace of error-filled modern civilization, it would be desirable to create a Green Peace Crusade. The aims of this crusade would be the wholehearted pursuit of a new naturalism based on new thought, specifically that "the mountains and rivers, grass and trees of nature all are God." This would include preventing the destruction of nature and desertification on a worldwide scale, making the entire earth an ideal paradise for all living things, overflowing with greenery and an abundance of food. If only a Joan of Arc would appear to carry the green banner.

We must have people of action to pursue this new movement of freedom and peace, to love and respect nature, to revegetate the earth, and to turn this world into a Garden of Eden.

APPENDIX DRAFT OF "A HUMAN CHARTER FOR THE 21ST CENTURY"

Section 1 Human Happiness

In the 21st century all people must achieve true happiness. If man is at his most degenerate in the 20th century, it is because the human race has lost sight of what true happiness is.

What is human happiness? In every age, man's true happiness and greatest joy are the times when the world is at peace and he can live freely and naturally.

Man's sense of the worth of his life begins when he awakens to the joy of life that is hidden

within him and, under the protection of God, partakes of the blessings of nature.

The 21st century will be an age that begins with the self-awareness of the individual and will be perfected through this self-awareness.

Natural science and the prosperous civilization that began in man's mistaken view of nature, have left nothing on the earth but the scars of natural destruction, and the development of the humanities and culture have done nothing more than satisfy the pride in human knowledge.

What we can foresee of the future of the globe is the disintegration and destruction of the human spirit, the loss of vegetation, the degradation of the soil, food crises, and the exhaustion of resources. In every aspect of life the situation appears hopeless.

Nevertheless, arrogant human knowledge is under the illusion that it can maintain present conditions and develop them even further, and the whole world, including bitter enemies, are in the same boat, at the mercy of a rushing torrent, and are being carried toward the abyss of despair.

Section 2 A Return to Do-nothing Nature

Man must return to nature and live in faithfulness to the life of nature.

When man distances himself from nature and sets off by himself, the wellspring of his life and joy dries up and the only thing left for him is self-destruction.

In this connection, man's joy and happiness are not something to be sought for and found outside himself, but rather, are to be found within himself through self-awareness. In every age, there is no other way for man than to live wholeheartedly, entering into the will of the Creator that governs the operation of nature, obeying the providence of God, and striving to understand absolute truth. It means participation in the work of God, which is nature.

Since man ate the fruit of the Tree of Knowledge, became dissatisfied with God's will, began looking for perfect happiness, and left the earthly paradise to wander in confusion, he has been on a difficult path. Hoping to resolve the confusion he has invited on himself through study and to achieve his desires. And yet, there is no salvation in that direction.

The joy and happiness of this world, as well as truth, good, and beauty, do not lie in the direction in which people are looking for them. They have been perfected on the original path, within nature. The physical health, freedom of spirit, and material bounty that man has sought have all been within the palm of his hand.

Unaware of this, he has taken pride in human knowledge and has departed from the bosom of nature (from being a child of God). As a result he has lost sight of everything and has simply been dashing about wildly chasing illusions.

The question is not whether man will create a paradise or a hell on earth, but when and why he lost sight of heaven and confused hell with paradise. When he flatters himself that human knowledge is superior to nature and tries to make use of nature, nature is very easily lost.

In its place, there is only a flood of false goods, imperfect because they are unnatural. From counterfeit items we can only obtain a false joy. If we try to maintain a fictitious peace, peace will withdraw farther and farther from us, and we will only head into a turbulent time rampant with guile and trickery.

In the search for the source of human life, a science of life has developed, but the harder man tries to elucidate the essence of life, the more he loses sight of the true value of life.

The fact that the more we worship the gods and Buddhas, the farther away from us they retreat, is based on the same principle. There is no other way to return to the seat of God but to return to oneself and to nature, and the way to do this is to do nothing.

Section 3 Living in a State of Ignorance

Man is under the illusion that he can know everything through his discriminative knowledge, and he cannot help becoming proud. Human knowledge is of no use in grasping God and absolute truth. Even if we say that, in comparison with other living things, man has the finest brain, equipped with a computer of the greatest precision, that doesn't make him the finest living thing. On the contrary, he has been exiled by God and is a wicked, ugly animal compared with other

living things. Generally, we can say that human knowledge developed because man became separate from God (and lost God's wisdom), became cut off from nature, and has had to live according to his own intelligence.

The tragedy of man and the earth began when discriminative knowledge separated God and man, and man became an opponent of nature. But originally this world must not have been a world of relativity. Since man made this world a world of relativity with his human knowledge, he has simply stopped having to worry about opposing, two-phase contradictions and conflicts.

When man's thought came to be shaped by the ideas of space and time, he changed completely from the other living things. But, the time that human knowledge has grasped and secured is human time. It is neither cosmic time nor, transcending that, God's time. Man's time of past, present, and future is condensed into this single second of the present. Because other living things live with God in cosmic time, beyond space and time, they are not at the mercy of relative concepts formed with a micro view of things, tossed about by alternating joy and sorrow.

In order to meet the 21st century, we must abandon the idea that we can use and control nature with human knowledge.

Nature is not something that stands in opposition to man; it is our true parent. A stupid act such as to injure our mother while still in the womb would only be suicidal.

Man does not create something from nothing with his knowledge. At the very most, he can only change the shapes of things and destroy them.

The grandeur of nature is the grandeur of God. We can only say that the absolute truth, the authority of God, that reigns over all the earth allows no intervention or judgment by human knowledge anywhere.

All things in nature are a great symphony orchestra that performs under the baton of a detached nature. And man is not able to know the name of the conductor. He cannot even know why truth, good, and beauty have formed a complete whole embraced by a single flower of nature.

The only thing that we must truly learn and understand is how ignorant man is.

Knowledge is not something to be prized. Such knowledge is nothing more than a small lamp

that confused men, who have lost sight of God's knowledge, have hung up in the dark cave of ignorance.

Section 4 Living in a State of Doing Nothing

To live in nature without knowledge or action is the appropriate life for man according to God's will. But in the eyes of the world, to do nothing appears tedious, and people can only consider it meaningless.

People believe without doubt that cultural activities, such as devoting oneself to art or literature or becoming absorbed in sports, provide one with a splendid purpose in life. It is common sense to be convinced that the academic life, in which one offers one's entire life for the advancement of civilization, to be valuable work.

Nevertheless, strictly speaking, even activities such as these, which appear to be work of the greatest value, are removed from man's true path and are nothing more than amusements. To put it even more extremely, they are nothing more than diversions for distracting man from his boredom, since he has lost sight of what a human life of true value is.

True culture exists within you. It is not a "blue bird of happiness" that you can search for and catch outside yourself.

People have a tendency to think that cultural activities are a useful means for the formation of character and that the advancement of civilization is a barometer of happiness, but a means is never more than just a means. People are not perfected and happiness is not increased by the advancement of civilization. Modern civilization is the blue bird without a heart.

Under the name of "profession," people are divided and killed. Even sports and dramatic acting have become professions, and the people in the audience try to ignore the time that has been snatched away from them.

There is no value in drama. People of value and nature simply become drama or pictures. At present amusements that allow one to spend one's time in a valueless vacuum have become a big

industry. The fact that people become absorbed in leisure activities is proof of how tired they are of their work and to what extent they have lost time worth living.

The contradiction that, to the extent that a country endeavors to secure an abundant, peaceful life for its people through national wealth and military strength, the people of the country will suffer from a sense of poverty and their uneasiness and fear will only increase, is based on the same principle.

To the extent that you search for abundance and peace outside yourself, you will lose it. Abundance is a carrot dangling in front of a horse's nose.

Our lives happen only once, and there is only one time. Time that is divided into study time, work time, and play time, that is used by ourselves and others, and that is made a sacrifice is no longer true time. It is fabricated human time, and we cannot retrieve the time that has been lost.

Just as Jesus said, man should live like the birds or the flowers of the field, but since man came up with the idea of growing things through cultivation, he has escaped from a life of doing nothing. He has dug iron and coal and pumped oil from the ground, developing the primary industries. With the processing of these materials, he has developed the secondary industries and then created the tertiary service industry. Now the industry of stored intelligence is flourishing, and we have plunged into a new information age, in which thinking robots compose musical pieces, play the piano, and sing. But in the end, what has man accomplished by this?

To whom has the time of the engineers who have spent their whole lives producing robots been dedicated?

We could say that the time children spend learning fabricated music from robot piano teachers also is time stolen by the robots.

People waste all the time they have been given in their lives in activity, doing this or that. At first glance, these activities would appear to be making the most of people's lives, but we must recognize that in reality, people's time is being absorbed and disappearing within them. To put it bluntly, by acting, by doing things, people are not being enlivened, they are being killed.

This serves as an example for everything else. Happiness does not reach us any more quickly,

nor is joy delivered, by automobiles. Cars appear to be means for speeding up time and shortening distances, but instead, they create human beings who are bound by time and suffer from impatience and restlessness. The result is that the more people create things that go fast, the more time they lose.

If man goes flying into space, he will not be able to play within a world of infinity. He will only turn space into a small, ugly star.

None of man's actions are useful in mastering or acquiring time. Rather, they are bound in human time and make it impossible for man to move. If he tries to gain time, he will only lose it.

There is no other way than to devote oneself to doing nothing and live in infinite space and time.

Section 5 Living in a State of Having Nothing

The people of the 21st century must completely cast aside the current tendency to see the material as everything and must establish the idea of having no material possessions, no endless supply,

The meaning of the having no possessions is that there is no thing of value in this world.

Approximately 10,000 years have passed since the cultural life of man began. The concepts given rise to during this time were based on the firm belief that value lies in material things and that the human race can progress by making things.

To put it bluntly, all the things devised with human knowledge and made using nature with the addition of human action are false fabrications. Fundamentally, they are completely useless, worthless things. Why is this? Non-natural things are always imperfect, always give man false happiness, and only lead him astray.

In other words, we only see that things have value when conditions making them necessary have been created. The value of these things will vanish on its own.

In agriculture, for example, when the arable soil dies, cultivators become necessary. When the

soil is depleted, fertilizer becomes useful, and when weak, sickly crops are grown, herbicides and pesticides come to have value. Not one of the materials used in agriculture is absolutely necessary. Only when nature falls into ruin do they become valuable. The fact that, when nature is made the most of, they become completely unnecessary is proven by the natural farming method.

In this world, "things" include not only material objects but also human knowledge and actions. Fundamentally, agricultural knowledge and techniques only came to have value after man chose to follow unnatural farming methods.

When man returns to nature and to his proper way of life, all things, knowledge, and work will become unnecessary and useless. This is true in every case.

The Greek philosophers said that it is sufficient if man has the five necessary elements of light, air, fire, water, and earth, and we will find all of these at our hearthside, which is the universe. But we can also say that even that universe is a dream world. We can say that all things are useless and return to nothingness

The "things" I am talking about here are referred to as "color" in Buddhism. The words of Sakyamuni Buddha, when he declared that all things, color (material things) as well as unsubstantial things such as spirit, are vanity and emptiness, taught us that both matter and mind are essentially one and that all are without value. He was stating that all human knowledge and thought regarding existence is in error.

But, 3,000 years later, man is unable to understand these words. He has not learned the great love taught by Christ, nor has he been able to follow Socrates' counsel to "Know thyself." Even though Islam says there is but one God, Christians and Buddhists do not follow his teachings. Because of the current flood of conflicting viewpoints and the glut of information, man is becoming more and more confused, and the entire human race has begun rushing en masse to the brink of destruction.

The question of whether or not man has a future depends on whether or not he can make a bold Copernican resolution to return to nature and do nothing.

(The test will be whether or not people can draw up a human charter for the 21st century.)

Now I want to shout, "Who is it that tramples and lays waste the Garden of Eden?"

Rather than the foolish man who ignorantly cuts down a tree, the wise man who knows better but acquiesces is the greater sinner.

God is silent.

God takes no revenge.

But when nature perishes and God dies, man also dies.

Now God is alone.

God needs the assistance of people of good will.

If you are a farmer, you can sow seeds in the desert.

Even city dwellers can plant *daikon* seeds by the roadside and in vacant lots.

To turn the earth into green fertile fields we need neither plows nor hoes.

Children and birds will plant four-leaf clovers.

Let us walk about asking people to stop raising cows and grazing sheep to satisfy their own desires.

Poets should sing the song of nature and artists paint nature, to show people where to find God.

Let us, one and all, participate in the work of God.

Let us turn the earth into a green paradise.

It will not be easy to bring back nature.

But it is not impossible.

Moreover

It is said that walking the path of God is more difficult than for a camel to pass through the eye of a needle, but

If we bring the mind's eye close the eye of the needle, even that small hole becomes infinitely large.

Isn't the camel our own inflated ego?

If men become humble/with no knowledge, no desire, no possessions,

They will be able to pass through the small hole with ease.

Anyone can hold God in his hand. Just like Sakyamuni and Christ.

Let us hold up a single flower

A FARMER'S HYMN

(1) Through the dark shade of cedars the road twists and turns

At last it arrives at a mountain monastery

Encircled by lamps a small gathering avails me, smiling

Ah now I know my heart's home is here

After wandering over mountains and rivers my journey has ended

Let us pray together

(2) The morning sun glistens on the treetops

Beneath my gaze stretches the Chikushi Plain

Eternally time flows on flows on into the Genkai Sea

Ah when the earth is green the people are prosperous and at peace

Birds and beasts live in harmony butterflies dance in the sky

Let us sing together

(3) Bathed in the glow of the setting sun I hear the toll of the bell

Letting go of my hoe I linger in prayer

My work for the day now has ended

Ah today yesterday for ages unchanged this feeling of peace

In the garden flowers bloom birds sing a hymn to God

Let us give praise together

(Music composed by Sister Ogawa of the Kitakyushu Carmelites)

The Revegetation of India

I would like to give those of you who support the effort to revegetate the desert a belated report of what I have been doing for the last two years. During the forty years that followed the end of World War II, I did nothing and had no contact with the world, but over ten years ago, when I was invited to the United States by health food advocates, I realized the usefulness of the natural farming method for revegetating the desert, and since that time I have been caught up in that task.

Although I went to Africa and tried the method there, experimented on a large area on a second visit to the U.S., and traveled all over India for two months preaching my ideas, I was able to accomplish nothing. I was bemoaning the futility of my efforts when, on Christmas night last year, Kimiko Kubo of Chiba came to my hillside hut "As thanks for the elephant Hanako that Prime Minister Gandhi sent after the war, I would like to give a small gift to the children of India." Saying this, she put five million yen wrapped in newspaper into my rice bin and left. I thought of how I could put this money to best use. Just at that time I was making statements to the newspapers on how to revegetate the deserts in India, so my dream grew. First, I flew to Thailand to collect seeds for India. I was placing my hopes on one thing. The year before, when I traveled about Thailand in order to propagate the natural farming method, I had seen a primeval forest and had concluded that this was the country where I could collect seeds to use in the desert.

For that reason, I had met with the most highly revered Buddhist monk in Thailand. He promised to obtain cooperation for natural farming and the revegetation of the desert, and I also received informal consent for my meeting with the Princess on my return to Thailand. If I were able to get permission to collect seeds in the primeval forest, which belongs to the royal family, then I could have some young monks gather them for me and . . . So my thoughts ran.

However, when I went the world was in turmoil, and talks went nowhere. As we were planting seeds on the grounds of the Kanchanapuri childrens' village school, the Persian Gulf War broke out, plans for starting a seed bank in Thailand vanished, and I hurried back to Japan after discussions were suspended. During the six months that the world was in an uproar over the war, I put together reports for use in the deserts of India and waited for an opportunity to take them there.

At the time I joked that rather than bombs, it would be better to sow seeds in clay pellets from bombers, and from this people became interested in sending seeds to the people in the deserts of Africa and other places. When the Asahi Shimbun and Ehime Shimbun newspapers carried the story, housewives and children from around the country began sending seeds from fruits and vegetables they had eaten. Also, with the cooperation of the Murata and Sakata seed companies in Matsuyama and the help of Ehime environmentalist Masuda, the packaging of seeds progressed. In addition, one million yen in donations were sent to the Itani's. When all this had been collected and I could at last go to India, it was the end of November.

I called upon the help of the Tagore Society, which had made arrangements for me before, and, accompanied by Sister Nagashima, who had previously interpreted for me, I set off, leaving the rest up to chance.

First, I called on the Governor of West Bengal State and viewed the site of the aerial seeding of mangroves at the mouth of the Ganges River. We went up the vast Ganges for about one hour in the sailboat of the head of the Ministry of Forests and Environment. After moving to a motorboat, we plied the shallow waters to our destination. The seedlings of twenty to thirty varieties of mangrove, which had just sprouted on the sandbar that stretched as far as the eye could see, grew in a wild jumble over the entire surface. I shared my amazement and my delight at this confirmation of the success of aerial seeding with Mr. Dasgupta.

When I pulled up one of these charming plants, a number of small shellfish and hermit crabs crawled out, and I was moved to wonder at the tiny movements of these small lives that *made* their home in the great river. And I wondered why this wonderful example of success has not, until now, been introduced to the countries concerned about the disappearance of the world's tropical rain forests, why it has not been put into effect elsewhere. Whether it's because India is such an isolated country or because the academics haven't heard about it, in any case, this is an amazing proof of the possibility of revegetating millions of hectares in a short period of time using aerial seeding.

The office of the officials working at the site is on the river bank, and as we neared it, the boat

became mired in a muddy place, and we could not get out. At that point a number of fishermen from the area gathered and pushed the boat, with we six passengers still aboard, up to the bank. After receiving an explanation inside the building, I went out into the garden and saw a multi-colored image of the beautiful goddess of the forest. The laborers who proudly told me she was their guardian deity lived in houses with about four square yards of floor space.

What interested me most was the rice growing in a marshy belt stretching as far as could be seen outside the bank. The soil was fertile, and a rare alga that produces nitrogen and potassium was growing over the entire surface, although it was not being used. The rice seemed close to a primitive state, with forty to fifty grains per head.

If we were to sow pellets of unhulled rice directly from airplanes, our success would be almost certain. I felt that there were a mountain of things to be done there in Bengal alone. I wrote an impromptu poem with a brush on a large sheet of paper, to be hung in the cabin of the boat. I was relieved that well-formed characters emerged so smoothly from the tip of the brush, but now I've forgotten the words of the poem.

When I returned to Calcutta, I heard that many people were waiting to see me in Bangalore, in the south, but I had Mr. Dasgupta and Mr. Makino go there instead, and I flew to New Delhi with my secretary Ashoka and Sister Nagashima.

Mr. Singh of the Office of Forests introduced me to the Minister of the Environment. Within the Ministry of the Environment was an Office of Wasteland Development and a Forest Division within that. I spent a day discussing the revegetation of the desert with the Minister. He is a very positive, active person, who represented India at the environmental summit in Brazil. He asked me if I would like to meet the prime minister, but the premier of China had just arrived in India, and I thought our meeting would be impossible in the midst of such important discussions. It was arranged, however, for us to meet for fifteen minutes the next day.

Because I would only be able to spend a short time with Prime Minister Rao, I took with me a small container, in which rice I had developed and clover suited to the tropics (a product of Egypt obtained through the Sakata Company) had sprouted. I began by asking the prime minister to

promote an agricultural revolution with the rice and to encourage the revegetation of the desert through the spread of the clover. This caught his interest, and while occasionally taking the container or the rice in his hands, he talked with me for almost an hour. I later heard that he had studied agronomy and is well-versed in agricultural methods. The prime minister then asked that I be introduced to the head of the Ministry of Agriculture.

The following day, during the morning I talked with technical experts, perhaps as a sort of trial, and in the afternoon I met with the Minister. Our discussion centered on scientific agricultural methods and natural farmers.

Fortunately, during this unexpected week in New Delhi I was able (thanks to the excellent interpretation of Sister Nagashima) to enjoy refining my ideas for an agricultural revolution and revegetation measures with a number of government officials. Accounts of these events were carried throughout the country by national television and the newspapers, and the prime minister's apparent support of natural farming was widely reported. I had the feeling that great interest in the revegetation of India had suddenly arisen. Nevertheless, given the slow pace at which events have developed since, we cannot be so optimistic.

From New Delhi, we went to see a site at Gwalior in Madhya Pradesh State where aerial seeding for the prevention of desertification had been carried out that summer. We flew to Agra in a former military airplane and were taken from there to the Office of Forests for the state. After riding a jeep across a plain dotted with fields of rape and sugar cane, we arrived at the Chambal Gorge. The scenery underwent an abrupt change, and as far as the eye could see stretched an odd desert of bare, red earth hills ranging from several meters to twenty or thirty meters in height.

In many places on the valley bottom there were only scattered natural stands of acacias (babul) and other trees. There were hardly any grasses such as sheep sorrel, and the completely barren red clay earth in this desert made revegetation seem a tremendous task. Even if seeds were sown, germination of naked seed would be poor, and I was told that if rain fell, they would probably be washed away. Therefore, the soil had been deeply tilled and a number of trenches dug. I could imagine that it would require a strategy of throwing in great numbers of men to dig all the

trenches by hand. Nevertheless, in spite of these efforts, there were hardly any plants growing where the seeds apparently had been sown.

I was told that the plants had been eaten by goats and other animals. One of the workers laughed ruefully and said, half in despair, "Well, even if we don't get a forest, the livestock are getting good feed."

Just then, as the jeep rounded a corner on the rutted road, a herd of goats came pouring out in front of us. The herdsman, startled at the sight of the gun carried by our guard, desperately flailed his whip and, as if fleeing, chased the goats up a bank that seem impossibly steep. The sight suggested to me that people were not allowed to move about freely in that area. The farmers, who live with cows and goats, must find it necessary to enter the area at times in search of the scant vegetation, and the officials also cannot avoid giving tacit approval.

In any case, I thought that revegetating this area would be very difficult, but at least the seeds that had been sown in clay pellets were growing well, and to that extent I was relieved. Afterwards, I heard that in the Madras area clay pellets had been sown successfully, and I made an agreement with our pilot to go there some days later.

At first I thought that if four or five years of work resulted in this amount of vegetation, then creating a forest where elephants could live was a long way off, but as I studied the plants in the area and listened to the exhaustive explanations of the government officials on the site, I realized that we were doing the right thing. In other words, I concluded that my measures against desertification were not mistaken and could be of use there. I was able to reaffirm my conviction that we can succeed if we sow a variety of seeds in clay pellets.

It would have been easy for me to talk about the conclusions I drew at the Chambal Gorge then and there, but I simply praised the results achieved through the strenuous efforts of the people of the state government, without giving any criticism. Before leaving, I gave them a copy of my *The One-Straw Revolution: A Recapitulation* and asked them to study it.

I did this because I clearly sensed that something had to be considered before desertification countermeasures were put into effect. Just after we arrived in that place by jeep, a number of

children and old farmers gathered around us and followed our every action intently. Seeing their eyes boring into us, seeming desperate to tell us something, I had the feeling that they knew, *in* their bones, the true cause of desertification. Their eyes were the same as the eyes of the children I saw in Somalia. When given a handful of seeds, those children had immediately set to work and produced excellent vegetables. I felt that the children of India could do the same thing.

Before working out measures against desertification, it is necessary to ask why the area has become a desert, to search out the true causes, and to cut those off at the root. I was told that ten years before there had been elephants in this area, and that three years before a tiger had come into the village. As a result of desertification, however, the villages downstream had disappeared. The desert had advanced at an unbelievable speed.

Measures against desertification must begin, fundamentally, with the denial of Western philosophy. We must understand how human knowledge and action have destroyed nature and turned the earth into a desert. Let me explain by giving a concrete example.

As I was going about by jeep, making my observations, I had several questions.

(1) In the desert I could catch glimpses of small green fields in the shadows of large rocks and clumps of reeds by the rivers. How did vegetation survive on these harsh, dry highlands?

(2) As we were returning, the sun was beginning to set, but it was suggested that we look at the crocodiles in the river. We therefore boarded a motorboat. The river was more than a hundred meters wide, and the water was remarkably clear. We rode for some time, but there were no crocodiles to be seen. They had known from the start that there were no crocodiles here and simply wanted to enjoy a boat ride. As I gazed at the lovely desert scenery in the evening light, the boat landing of some ancient queen, the lover of a ruined palace, smoke rising from a crematorium, many things came to mind that I remembered for later reference.

After returning to the Office of Forests I saw in the garden there, and was allowed to hold, small crocodiles and a number of other rare animals that had been bred in captivity. I was told that there were now only fifty Indian crocodiles left in the Ganges. When I thought about it, I realized there was a deep connection between crocodiles and the desert.

(3) If there are rivers, why are there deserts? What was the key to solving this puzzle? The river there was clear, and there were no crocodiles or fish. In Somalia, the Juba River flows through the desert, full of water year-round, and catfish live in the muddy water.

The problem is not that a place becomes a desert because there is no water, nor is it the case that, if there is water, there will inevitably be fish. The relationship of soil, water, and trees is not as simple as scientists would make it seem, but I too have summarized the process by which the earth becomes a desert in the following manner. Even in a jungle where large trees grow luxuriantly and elephants live, once man's ax is introduced, the trees disappear, and the land becomes a grassy plain. When people begin to live there communally, eat meat, and therefore raise goats and cows, the green of the plain fades almost instantly. When rain falls on the naked earth, which no longer wears its mantle of green, it soon floods, severe mudslides occur, and the fertile soil is washed away. All that is left is a rugged wasteland. Without vegetation, the earth dries out and inevitably becomes a desert. So the scientific explanation goes.

In the attempt to restore the vegetation in a desert created in this manner, desert in order to bring the vegetation back to life. I would like to suggest that, on the contrary, the result of such action is even further damage to nature.

In order to explain in concrete terms why this is so, I first must pursue the relationship of water and soil one step further. Originally, water, soil, and crops are a single unit. But since the time that people came to distinguish soil and water, and to separate soil from crops, the links among the three were broken, they were torn apart and isolated, and were placed in opposition to each other.

Water in which organisms no longer live is no longer real water. Soil without grass, although it is soil, is really not soil. Earth without grass is dead earth, with no connection to water. It is only natural that grass and trees will not thrive there.

Recently I have come to think that, rather than grass and trees growing in the soil, plants and animals create the soil. That at the time of creation, microorganisms created the soil. The life of bacteria and the life of the soil are the same.

It is not that there is no water, so grass does not grow, and a desert is born. Rather, I think,

plants create water and create the living soil. (See *The One-Stray Revolution: A Recapitulation, "A Criticism of Darwin's Theory of Evolution"*)

I saw not only grass grown without water, but also trees growing on rocks. This suggests that the fundamental causal relationships among soil, water, and plants vary infinitely, according to time and place, and can be interpreted in any number of ways. In other words, there is basically no before or after. There is none, and in the end, what are seen as cause and effect in the natural world are nothing more than arbitrary judgments based on human knowledge. In the eyes of natural scientists, a law of cause and effect is established, but seen from a philosophical standpoint, the law of cause and effect disappears and becomes meaningless. If we disturb nature, with a spur-of-the-moment, scientific, short-sighted point of view, then rather than revegetating the desert, we will probably only hasten the destruction of the earth.

I would like to look more closely at the question of why introducing rivers into the desert is a mistake. The farmers on the desert highlands surely must not have suffered from a lack of water from the beginning. I saw rice ripening in natural paddies at the highest point of the Deccan Plateau, Rocky places 3.000 meters high in the Himalayas are not without vegetation. The fact that people are living in a place is proof that there were forests and water. Why must we carry water up from the river valleys by cable? The question is, why have wells become necessary?

The forests on the mountains were cut down, the mountains died, the rivers flooded, the soil washed away, the rivers died, the earth became a desert. These phenomena are all nothing more than the products of human knowledge and human action. No matter how we may search for the sequence of events, no conclusion will emerge. The law of cause and effect, constructed on the concepts of changing space and time, will only result in eternal recurrence. That is, as long as people think they need trees and must cut them down,

The destruction of mountains and water and trees and people arises at the same time and must be resolved at the same time. Arguing about the chicken and the egg will get us nowhere. It's a double-headed snake. Going around and around with human knowledge will not lead to any conclusion.

When water and soil and crops have been cut apart by human knowledge, and lie unity of nature crushed at its source, then this planet must surely speed toward its destruction. After all is said and done, the death of the soil and water, and the deserts too, if we look closely, are not natural disasters but manmade disasters based on scientific judgments. Furthermore, it is the philosophical error at the base of modern science that is dealing nature a mortal blow.

To put it simply, even though a place became a desert from a reliance on water, we cannot bring about the recovery of the desert by pouring on water. Let me give an example seen in Somalia and other places. When Westerners see a dry desert, they think, in a relative way, that water is useful, and they try, by human action, to introduce irrigation water. At that point, the natural flow of water is interrupted. They build dams in the rivers, collect water to use, and build canals and waterways, but the proof of what a tragedy this activity brings about in the natural world can be seen at the Aswan Dam in Egypt.

In general, the method that can be adopted most easily is to raise river water by pumps to waterways, from which the land is irrigated. To my amazement, I saw when I visited Somalia that both the Russians, English, and Italians in the past, and modern farms supported by France and Japan used this method. In general, they carried it out as follows.

Soil from the area around the river was piled at right angles to the river by bulldozers (destroying the fertility of the fields) to construct dikes more than ten meters high (the longer, the higher). On top of these, dirt or concrete waterways were made to carry water pumped up from the river. Small fields below the dike are watered in succession. The water is precious, of course, so only a little is run onto the fields and it does not stand. Like water poured onto heated rocks, it soon evaporates, and all that is left is salt. Water is not always flowing in the waterways or into the fields, so it's really like pouring water on a salt field. Obviously, after about five years, the salt has accumulated, and crops will not grow there. The site is then abandoned, and the farm is moved to a new place.

The refugees and other people who settle on the edges of these large farms, in return for a minimal amount of food, spend their days working in pairs, using a scoop attached to a rope to

remove the sand blown into the fields' shallow ditches. Pouring water on heated rocks, shoveling sand in the desert, futile labor has always been the same, past and present. It's the same even on modern farms financed by aid from the developed nations.

No matter how diligently people try to grow crops in the barren earth, from which the topsoil has been scraped, monoculture crops that are of course susceptible to insects and disease, they cannot easily make a living. And when the farms change location, not even a single tree or blade of grass remains. All that is left is a flat desert, worse than before, and a big pump that's out of gas.

I can't imagine why, in the first place, they built waterways on top of these strange, high dikes. When you think about it, though, if the water is intentionally raised to such high dikes, and the authorities are the only ones who control the pumps and water rights, then the people of Africa are having the lifeline of water wrested from them. Perhaps there is no evil intent, but there can be no doubt that the idea developed out of Western thought, which pits man against nature and says that man must improve and control nature. I think it is justifiable to say that such waterways would prove a most opportune and effective means for colonial rulers. It is the same sort of method used by modern scientific agriculture to take farming away from the farmers.

If instead, it were up to Asians, who live at one with nature, they probably would not build such waterways but would try to use the natural flow of water as much as possible. Large rivers in nature have tributaries which flow downhill, and the tributaries are fed by smaller streams. If ditches are made from these small streams, water can be run into the fields naturally. The natural method of down-flow irrigation would be good enough. If we take living small within nature as our premise, then we ought to be able to live together with nature, anywhere, in a natural state of doing nothing. Furthermore, we can also say that that is the highest and best way of living. As long as people have not forgotten the mind and form of nature, the soil, even if not watered, will surely become moist and alive (The greenbelt irrigation method).

I took up the question of soil and water as one example of the ideas, such as defying nature or trying to improve it, that are destroying the earth, but this theory can be applied to all of man's errors in regard to the earth's air, light, and fire, all the basic elements and all the things and

phenomenon that come from them. While I cannot go into it fully here, I believe that in order to solve the problem of deserts, we must solve all the problems of the world.

When I was taken to an old shrine at the top of a hill in the Chambal Gorge and I bowed before it, I was speechless in the midst of this vast desert and stood rooted to the ground, forgetting even to pray. After I returned to the government office building, I was asked to write a report of my observations. I took up a pen to do so, but then thought that if they did not understand the thought on which the techniques of my desert countermeasures were founded, the results might in fact be negative. So I declined, promising to send my report after I had returned to Japan. That report has been printed as "A Revolution of God. Nature, and Man."

After returning to New Delhi, we headed for Calcutta, flying at night in a dense fog. In the cabin we heard only the announcement that we were going by a different route, and then found that we had landed in Hyderabad, in the south. If we could have left the plane, we could have seen aerial seeding, but we were under strict orders to remain inside. We then went on to Bombay, ate breakfast on the plane, took off again, and finally landed in Calcutta. As a result, I had a whole day of free air travel in the skies over India. I discovered that there was almost no vegetation between Bombay and Calcutta. I later flew over Bangladesh and Myanmar, and to my dismay, not until we approached Thailand could I see anything from the plane window except desert. If people were to see aerial photographs of the earth, they would understand just how precious it is.

From Calcutta I was able, thanks to Professor Makino, who teaches at Manipur University, to go to the state of Manipur, which is almost completely closed to foreigners. The capital city of Imphal is the place where, during World War II, Japanese soldiers entered the country from Burma and were all killed in a battle with Somalian and Ethiopian soldiers fighting under the British flag. When I stood before a marker raised by the local people to commemorate the battle and heard an account of how the Japanese soldiers fought, I wept over the cruelty of history. In a commemorative hall near the floating island, there was an exhibit of many photographs of Japanese soldiers working in cooperation with Chandra Bose, a champion of Indian independence, and I viewed them with mixed emotions.

In this state, or is it a country, the people and climate are just like Japan's. The former king and present governor of the state looked just like the feudal lord of Matsuyama who became governor. He welcomed us and gave us an opportunity to speak before high officials and university students, and thanks to his good offices we were able to make a tour of inspection of the state without any difficulties.

The former prime minister led the way in a jeep. One day, when we were in the country, it rained and we took shelter in an elementary school. A large number of children gathered around us, and it occurred to me to show them photos of my natural farm. As I did so, I told them about the natural farming method. It should be possible to sow seeds of tropical fruit on the hills in the area, which had become barren, and to grow the thirty kinds of fruit that grow in Japan. I encouraged them to create a paradise such as they saw in the pictures. The soil in the fields is fertile. If they were to sow directly a variety of clay seed pellets, they would not be troubled by deep mud. When I told the children to go home and explain this to their mothers and fathers, they listened with shining eyes. The former prime minister also joined in and said that I was telling them the truth, which caused quite a stir. They were already overwhelmed that the former king was there. Afterwards I heard that this place had been designated a model village for the creation of an ideal country. The sight of those barefoot children gathering firewood in the rain was like that of my own elementary school days, and their eyes sparkled like those of the children in Somalia and in the children's village in Thailand.

At any rate, there was no time to spare in my very tight schedule, but every evening I was invited to a banquet by some minister and entertained with lovely folk dances, so it was indeed an enjoyable, worthwhile trip.

On my final day there, a roundtable discussion with leaders of the community, who seemed to represent every field, was held in a public hall. At the end of my talk, I read a poem I had written about the lovely floating islands of Lake Imphal and said that if I were asked to choose one photograph that I had taken in my travels around the world, I would choose a photo of those islands. There was a burst of applause, and one of those present said, "We had thought that we

were the poorest, most insignificant country in the world, but you have said that this country will become an ideal home for the world and have given us courage." They then went so far as to write a declaration of their intention of creating a paradise and had me sign it too. So, from now on, I must do what I can to help them.

It was nothing unusual for the plane to Calcutta to be grounded for days at a time, so we went to the airport early in the morning to make sure there *was* a plane. There was some problem that could not be repaired, so in the afternoon arrangements were made for a plane to come for us. We had no idea when it would arrive, and the information we received raised our spirits and then lowered them. The rainy airport was cold, and even though the three of us covered our heads with coats the governor had given us, we were still shivering. Nevertheless, ten brave souls from the ministry of agriculture waited to the very end to see us off. They were just like the Japanese in the old days.

Back in Calcutta, I thought of returning to Bombay and going, as at first planned, to the Narmada River, but Ashoka said that, after having raised interest in revegetating the desert, we might ruin things by getting caught up in the Narmada Dam issue. Giving up on that, we discussed an invitation we had received from a prince in the desert to the west, and I thought it wouldn't be a bad idea to go riding across the desert in the sunset on camels with the prince and Sister Nagashima. We also talked about going to where the pilot who had promised to do aerial seeding was waiting for us. south of Madras, but it was a bad time to try to do that. The political situation was not good, and we could not collect the seeds. We decided to come again, after sufficient preparation had been made.

Turning everything over to Mr. Dasgupta, we set out for Thailand. I stopped there on my way home because while in India I had been deeply impressed with the understanding that, if we were not able to carry forward the seed bank as planned and guarantee a large supply of seeds, we could never put desert revegetation into practice on a full-scale basis. But things were unchanged in Thailand, with talks proceeding a step forward and then falling back. All I could do was lament my own scant influence. The seedlings planted at the children's village school on my previous

visit were not taking root well, but I recognized the source of the problem, so we started over, and this time they will probably succeed.

Looking back on it now, I feel that my visit to India this time was a failure, but after returning to Japan and looking at Sister Nagashima's impressions and so on, I also believe that we were able to advance the revegetation of the deserts a step forward. If we were able to do this to some extent, it was surely due to the excellent interpretation done by Sister Nagashima, who has grasped the teachings of Christ at a deep level, and Professor Makino, who has penetrated many of the truths of Buddhism. Because I always speak foolishly, with a biting tongue, in words that can easily be taken as sophisms, I tend to hurt people's feelings. When my words were translated by these two, however, they became sweet as candy, softening the mood in meetings, and "Mieko" and "Makino" won the confidence of the prime minister, the other ministers, and royalty alike. I suppose in the end what moves people is a sincere heart.

Unfortunately I lack that I gave up on myself, and the reason I can no longer set out on journeys alone is not simply because my health became poor after returning to Japan and I lost my confidence.

This year an environmental summit was held in Brazil, and a number of environmental problems came under discussion. I could not very well let this go by without doing anything, so I attended the following meetings.

(A) In June, the day after the meeting of intellectuals organized by Mr. Takeshita around Maurice Strong, the director of the Brazil summit, a panel discussion moderated by Ryu Tachibana was held at the Shiba Zojoji Temple. (Broadcast on NHK)

(B) A one-day meeting at the Teikoku Hotel in Kyoto with the Minister of the Environment of India, to refine plans for a movement to create an elephant forest,

(C) A meeting with Sir Runphal of the Brazil summit, the three major newspapers, and their editorial writers. (Sponsored by the Kyoto Forum)

(D) Meeting of the sponsors of the Magsaysay Foundation.

To Mr. Strong I showed a head of rice I had grown and told him that even if the population of

the world doubled, we could still feed everyone by making the most of nature using the natural farming method, without using a drop of oil. With Sir Runphal I only talked about concrete steps for desert revegetation.

I think that what I reported to the Indian Minister of the Environment will become necessary conditions for promoting the revegetation of the deserts in the Future, so I would like to write about them in some detail. When I met Mr. Singh, along with people from the embassy, at the Teikoku Hotel, to work on plans for the movement to create an elephant forest, I made a strong request that, in addition to desert revegetation being promoted, the following necessary conditions be met as soon as possible.

First, that an organization be create to ensure that seeds and funds for use in revegetation collected from the Japanese people be smoothly and securely put into he hands of the farmers of India who will sow them. In other words, to except .hem from plant quarantine or at least simplify the procedures. To establish a bank account in which donations may be deposited. This request was met, and donations can be sent to New Delhi - 110003, CGO Complex.

Second, that the Indian government, which holds large tracts of wasteland, open them without charge to people who will sow seeds on them, or, like Japan, lease the land, so anyone can sow seed on it.

(A) The reason Japan was able to plant forests throughout the country is that seedlings were given to farmers free of charge, and the forestry cooperative was always there to back them up. In the case of India, seeds should be distributed without charge, and the seed bank should always have seeds on hand.

(B) Application procedures for sowing seeds in the desert should be simple. In Japan, farmers simply indicate, on a single sheet of paper, the date, place, and area on which they want to plant trees and turn it in to the forestry cooperative.

Afterwards, the cooperative confirms that the work has been completed, and the price of the seedlings is paid.

In contrast to this, the assistance program for development of wasteland in India requires

submission of a detailed plan five-five pages in length. You have to record, in minute detail, who is the head of the business, what class they are from, who will receive the most profit, how responsibility will be taken in case of failure, etc. Japanese farmers wouldn't be able to do anything either under such a system. I asked that more trust be given the farmers and procedures be made simpler, but that point has not been settled yet.

Japanese people seem too impatient to work with Indian people, who have a slower sense of time. Although I wanted to go there in late June, a visa was not forthcoming, and nothing happened in response to plans for September or October either.

The Kyoto Forum decided to give 45 million yen in assistance, in response to an application to the Postal Ministry for carrying out revegetation of the desert according to the Fukuoka method. Why can't it be put to use? The problem seems to be something that precedes even technical problems.

Well, if we negotiate patiently, something will happen. I think desert revegetation will really take off once it gets started.

During the past two years, hardly anything has been accomplished in the areas with which I have dealt and had responsibility for, and I apologize for not having made a report before now. I look forward to seeing the fruit that will be borne of the seeds and financial donations you have given, and I hope you can go and see it with your own eyes.

To those who will plant seeds in the desert

From Masanobu Fukuoka December 1992